Object Oriented Programming Concepts In Hindi

à¤‘à¤¬à¥à¤œà¥‡à¤•à¥à¤Ÿ à¤“à¤°à¤¿à¤à¤‚à¤Ÿà¥‡à¤¡ à¤ªà¥à¤°à¥‹à¤—à¥à¤°à¤¾à¤®à¤¿à¤‚à¤— à¤•à¥‰à¤¨à¥à¤¸à¥à¤Ÿà¥à¤¸ à¤¹à¤¿à¤‚à¤¦à¥€ à¤®à¥‡à¤‚,

à¤¹à¤° à¤¬à¤¾à¤° à¤œà¤¬ à¤¹à¤® à¤•à¤‚à¤ªà¥à¤¯à¥‚à¤Ÿà¤°à¥,à¤Ÿà¤° à¤ªà¥à¤°à¥‹à¤—à¥à¤°à¤¾à¤®à¤¿à¤‚à¤— à¤•à¥€ à¤¬à¤¾à¤¤ à¤•à¤°à¤¤à¥‡ à¤¹à¥ˆà¤‚,, à¤¤à¥‹ à¤‘à¤¬à¥à¤œà¥‡à¤•à¥à¤Ÿ à¤“à¤°à¤¿à¤à¤‚à¤Ÿà¥‡à¤¡ à¤ªà¥à¤°à¥‹à¤—à¥à¤°à¤¾à¤®à¤¿à¤‚à¤— (OOP) à¤•à¥€ à¤šà¤°à¥à¤šà¤¾ à¤…à¤¨à¤¿à¤µà¤¾à¤°à¥à¤¯ à¤¹à¥‹ à¤œà¤¾à¤à¥€ à¤¹à¥ˆà¥¤ à¤¯à¤¹ à¤•à¤‚à¤¸à¤¾ à¤•à¤‚à¤¸à¤¾à¤°à¥à¤¯à¥‹à¤—à¥à¤°à¤¾à¤®à¤¿à¤‚à¤— à¤•à¥‹ à¤¬à¤¢à¤¼à¤¾à¤¨à¥‡ à¤®à¥‡à¤‚, à¤µà¥à¤¯à¤¿à¤¤à¤¿à¤—à¤¤ à¤”à¤° à¤‚à¤®à¤¹à¤¤à¥à¤µ à¤®à¥‡à¤‚, à¤†à¤‚à¤¾à¤¨ à¤¬à¤¨à¤¾à¤¯à¤¾ à¤œà¤¾à¤¤à¤¾ à¤…à¤—à¤° à¤†à¤ªà¤¨à¥‡ à¤•à¤à¥€ à¤‚à¥‹à¤šà¤¾ à¤¹à¥ˆ à¤•à¤¿ à¤•à¥ˆà¤‚à¥‡ à¤¹à¤®à¤¾à¤°à¥‡

à¤®à¥‹à¤¬à¤¾à¤‡à¤² à¤à¤ªà¥à¤¸, à¤µà¥‡à¤¬à¤¸à¤¾à¤‡à¤Ÿà¥à¤¸ à¤”à¤° à¤¸à¥‰à¤«à¥à¤Ÿà¤µà¥‡à¤¯à¤° à¤‡à¤¤à¤¨à¥‡ à¤¸à¥à¤®à¤°à¥à¤Ÿ à¤”à¤° à¤¯à¤,à¤œà¤°-à¤«à¥à¤°à¥‡à¤‡à¤,à¤¡à¤²à¥€ à¤¹à¥‹à¤¤à¤‡ à¤¹à¥ˆà¤,, à¤¤à¥‹ à¤‡à¤¸à¤•à¤¾ à¤¬à¤¡à¤¼à¤¾ à¤•à¤¾à¤°à¤£ à¤¹à¥ˆ OOPà¥¤

OOP à¤•à¥à¤¯à¤¾ à¤¹à¥ˆ?

à¤‘à¤¬à¥à¤œà¥‡à¤•à¥à¤Ÿ à¤“à¤°à¤¿à¤à¤‚à¤,à¤Ÿà¥‡à¤¡à¤¡à¥à¤°à¥‹à¤—à¥à¤°à¤¾à¤®à¤¿à¤,à¤— à¤à¤•à¤¤à¥à¤°à¥‹à¤—à¥à¤°à¤¾à¤®à¤¿à¤,à¤— à¤ªà¥ˆà¤°à¥‡à¤¡à¤¡à¤®à¤¹à¤¤à¥ à¤œà¥‹ à¤¡à¤¾à¤Ÿà¤¾ à¤”à¤° à¤‰à¤¸à¤•à¥‡ à¤µà¤¾à¤²à¥‡ à¤«à¤¼à¤,à¤•à¥à¤¶à¤¨ à¤•à¥‹ à¤à¤• à¤¯à¥‹à¤,à¤¨à¤¿à¤¿à¤Ÿ à¤®à¥‡à¤à¤, à¤¬à¤¾à¤à¤§à¤¤à¤¾ à¤¹à¥ˆ à¤œà¤¿à¤¸à¥‡ 'à¤‘à¤¬à¥à¤œà¥‡à¤•à¥à¤Ÿ' à¤•à¤¹à¤¾ à¤œà¤¾à¤¤à¤¾ à¤¹à¥ˆà¥¤ à¤‡à¤¸à¤¿à¤¸à¥‡ à¤•à¥‹à¤¡ à¤•à¥‹ à¤ªà¥à¤¨: à¤‰à¤ªà¤¯à¥‹à¤— à¤•à¤°à¤¨à¥‡, à¤ªà¥à¤°à¥‹à¤—à¥à¤°à¤¾à¤® à¤•à¥‹ à¤®à¥‰à¤¡à¥à¤¯à¥‚à¤² à¤¬à¤¨à¤¾à¤à¤‚ à¤”à¤° à¤œà¥Ÿà¤¿à¤²à¥à¤¤à¤¾ à¤•à¥‹ à¤•à¤® à¤•à¤°à¤¨à¥‡ à¤®à¥‡à¤à¤, à¤®à¤¾à¤¨à¤¦à¤¾à¤à¤‚ à¤‰à¤¨à¥€à¤‚ à¤à¤•à¤°, à¤•à¤¾à¤°à¤£ à¤•à¥‹ à¤à¤•à¥à¤²à¥‹à¤,à¤¤à¤•à¥€à¤‚ à¤¹à¥ˆà¥¤

OOP à¤•à¥‡ à¤®à¥à¤–à¥à¤¯ à¤¸à¤¿à¤¦à¥à¤§à¤¾à¤‚à¤¤

1. à¤•à¥à¤²à¤¾à¤¸ (Class)

à¤•à¥à¤²à¤¾à¤¸ à¤à¤• à¤¬à¥à¤²à¥à¤ªà¤¿à¤à¤‚à¤Ÿ à¤‘à¤¬à¥à¤œà¥‡à¤•à¥à¤Ÿ à¤•à¥‡ à¤²à¤¿à¤ à¤à¤• à¤¬à¥à¤²à¥à¤ªà¤¿à¤à¤‚à¤Ÿ à¤”à¤° à¤µà¥à¤¯à¤¹à¤¾à¤°à¥‹à¤§à¤¾à¤°à¤¿à¤à¤‚à¤Ÿ à¤•à¤°à¤¤à¤¾ à¤ªà¥ˆà¤°à¥‡à¤®à¤¿à¤à¤‚à¤Ÿà¥à¤¸ à¤•à¤¾ à¤‰à¤¨à¥€à¤‚ à¤à¤•à¤°, à¤•à¤¾à¤°à¤£ à¤•à¥‹ à¤à¤•à¥à¤²à¥‹,à¤¤à¤•à¥€à¤‚ à¤®à¥‡à¤à¤, à¤¬à¤¾à¤à¤§à¤¤à¤¾ à¤•à¥‹ à¤•à¤®

à¤œà¤¿à¤¸à¤®à¥‡à¤, à¤°à¤‚à¤—, à¤®à¥‰à¤¡à¤² à¤”à¤° à¤—à¤¤à¤¿à¤œà¥^à¤¸à¥€ à¤µà¤¿à¤¶à¥‡à¤·à¤¤à¤¾à¤à¤ à¤¹à¥‹à¤¤à¥€ à¤¹à¥^à¤‚à¥¤

2. à¤‘à¤¬à¥à¤œà¥‡à¤•à¥à¤Ÿ (Object)

à¤‘à¤¬à¥à¤œà¥‡à¤•à¥à¤Ÿ à¤•à¥à¤²à¤¾à¤¸ à¤•à¤¾ à¤à¤• à¤®à¥‰à¡à¤¼à¤°à¤£ à¤¹à¥‹à¤¤à¤¾ à¤¹à¥^à¥¤ à¤®à¤¾à¤¨ à¤²à¥€à¤œà¤¿à¤, à¤†à¤ªà¤•à¥€ à¤•à¤¾à¤° à¤à¤• à¤‘à¤¬à¥à¤œà¥‡à¤•à¥à¤Ÿ à¤¹à¥^ à¤œà¥‹ à¤•à¤¾à¤° à¤•à¥à¤²à¤¾à¤¸ à¤¸à¥‡ à¤¬à¤¨à¤¤à¤¾ à¤¹à¥^à¥¤

3. à¤‡à¤¨à¤•à¥^à¤ªà¥à¤¸à¥à¤²à¥‡à¤¶à¤¨ (Encapsulation)

à¤¯à¤¹ à¤¸à¤¿à¤¦à¥à¤§à¤¾à¤‚à¤¤ à¤¡à¥‡à¤Ÿà¤¾ à¤”à¤° à¤®à¥‡à¤¥à¤¡à¥à¤¸ à¤•à¥‹ à¤à¤• à¤¸à¤¾à¤¥ à¤¬à¤¾à¤à¤§à¤¤à¤¾ à¤¹à¥^ à¤”à¤° à¤¬à¤¾à¤°à¥€ à¤•à¥‹à¤¡ à¤¸à¥‡ à¤›à¥à¤ªà¤¾à¤¤à¤¾ à¤¹à¥^, à¤œà¤¿à¤¸à¤¸à¥‡ à¤¡à¥‡à¤Ÿà¤¾ à¤¸à¥à¤°à¤•à¥à¤·à¤¾ à¤¸à¥à¤¨à¤¿à¤¶à¥à¤šà¤¿à¤¤ à¤¹à¥‹à¤¤à¥€ à¤¹à¥^à¥¤

4. à¤‡à¤¨à¤¹à¥‡à¤°à¤¿à¤Ÿà¥‡à¤,à¤¸ (Inheritance)

à¤¯à¤¹ à¤à¤• à¤•à¥à¤²à¤¾à¤¸ à¤•à¥‹ à¤¦à¥‚à¤¸à¤°à¥€ à¤•à¥à¤²à¤¾à¤¸ à¤•à¥‡ à¤—à¥à¤£ à¤”à¤° à¤µà¥à¤¯à¤¹à¤¾à¤°à¤µà¤¹à¤¾à¤°à¤µà¤¿à¤°à¤¾à¤¸ à¤®à¥‡à¤‚, à¤²à¥‡à¤¨à¤¾ à¤•à¥€ à¤…à¤¨à¥à¤®à¤¤à¤¿ à¤¦à¥‡à¤¤à¤¾ à¤¹à¥^, à¤œà¤¿à¤¸à¤¸à¥‡ à¤•à¥‹à¤¡ à¤¸à¥‡ à¤¬à¤à¤§à¤¨à¥: à¤‰à¤¦à¤¾à¤¹à¤°à¥à¤— à¤¹à¥‹à¤¤à¤¾ à¤¹à¥^à¥¤

5. à¤ªà¥‰à¤²à¤¿à¤®à¥‰à¤°à¥à¤«à¤¿à¤œà¥à¤®

à¤ªà¥‰à¤²à¤¿à¤®à¥‰à¤°à¥à¤«à¤¿à¤œà¥à¤® à¤•à¤¾ à¤®à¤¤à¤²à¤¬ à¤¹à¥ˆ à¤à¤• à¤‡à¤,à¤Ÿà¤°à¤«à¥‡à¤¸ à¤•à¥‡ à¤•à¤ˆ à¤°à¥‚à¤ª à¤¹à¥‹ à¤¸à¤•à¤¤à¥‡ à¤¹à¥ˆà¤,à¥¤ à¤¯à¤¹ à¤ªà¥à¤°à¤¾à¤®à¤¾à¤£à¤¿à¤• à¤•à¥‹ à¤…à¤§à¤¿à¤• à¤«à¥à¤²à¤¿à¤•à¥à¤¤à¤¾ à¤¬à¤¨à¤¾à¤¤à¤¾ à¤¹à¥ˆà¥¤

6. à¤à¤¬à¥à¤¸à¥à¤Ÿà¥à¤°à¥ˆà¤•à¥à¤¶à¤¨ (Abstraction)

à¤¯à¤¹ à¤œà¤Ÿà¤¿à¤²à¤¤à¤¾à¥¤ à¤•à¥‹ à¤›à¥à¤ªà¤¾à¤•à¤° à¤•à¥‡à¤µà¤²à¤œà¤°à¥,à¤°à¥€ à¤œà¤¾à¤¨à¤•à¤¾à¥€ à¤¦à¤¿à¤–à¤¾à¤¨à¥‡ à¤•à¥€ à¤ªà¥à¤°à¤•à¥à¤°à¤¿à¤¯à¤¾ à¤¹à¥ˆà¥¤ à¤‡à¤¸à¥‡ à¤¯à¥,à¤œà¤° à¤•à¥‡ à¤²à¤²à¤¿ à¤ªà¥à¤°à¤¾à¤®à¤¾à¤£à¤¿à¤• à¤•à¥‹ à¤®à¤¾à¤¨à¤¤à¤¾ à¤¹à¥ˆà¥¤

OOP à¤•à¥‡ à¤«à¤¾à¤¯à¤¦à¥‡

1. à¤•à¥‹à¤¡ à¤•à¤¾ à¤ªà¥à¤¨: à¤‰à¤ªà¤¯à¥‹à¤— (Reuseability) à¤†à¤¸à¤¾à¤¨ à¤¹à¥‹à¤¤à¤¾ à¤¹à¥ˆà¥¤
2. à¤¬à¤¡à¤¼à¥€ à¤ªà¤°à¤¿à¤¯à¥‹à¤œà¤¨à¤¾à¤“à¤, à¤•à¥‹ à¤®à¥ˆà¤¨à¥‡à¤œ à¤•à¤°à¤¨à¤¾ à¤†à¤¸à¤¾à¤¨ à¤¹à¥‹ à¤œà¤¾à¤¤à¤¾ à¤¹à¥ˆà¥¤
3. à¤¡à¤¿à¤¬à¤—à¤— à¤”à¤° à¤®à¥‡à¤à¤,à¤Ÿà¥‡à¤¨à¥‡à¤à¤,à¤¸à¤®à¥‡à¤à, à¤†à¤¸à¤¾à¤¨à¥€ à¤¹à¥‹à¤¤à¥€ à¤¹à¥ˆà¥¤
4. à¤ªà¥à¤°à¥‹à¤—à¥à¤°à¤¾à¤® à¤…à¤§à¤¿à¤•à¤µà¤¿à¤¶à¤¨à¤¸à¥€à¤¯ à¤”à¤° à¤¸à¥à¤°à¤•à¥à¤·à¤¿à¤¤

à¤¬à¤¨à¤¤à¥¾ à¤¹à¥ˆà¥¤

à¤¨à¤¿à¤·à¥à¤•à¤°à¥à¤·

à¤‘à¤¬à¥à¤œà¥‡à¤•à¥à¤Ÿ à¤“à¤°à¤¿à¤à¤‚à¤Ÿà¥‡à¤¡ à¤à¥à¤°à¥‹à¤—à¥à¤°à¤¾à¤®à¤¿à¤‚à¤— à¤¨à¥‡ à¤†à¤§à¥à¤¨à¤¿à¤• à¤¸à¥‰à¤«à¥à¤Ÿà¤µà¥‡à¤¯à¤° à¤µà¤¿à¤•à¤¾à¤¸ à¤®à¥‡à¤, à¤•à¥à¤°à¤¾à¤‚à¤à¤¿à¤ à¤²à¤¾à¥ˆà¥¤ à¤¹à¤¿à¤à¤¿à¤ à¤®à¥‡à¤, OOP à¤•à¥‡ à¤ªà¥à¤°à¤®à¥à¤– à¤•à¥‰à¤¨à¥à¤¸à¥‡à¤ªà¥à¤Ÿà¥à¤¸ à¤•à¥‹ à¤¸à¤®à¤à¤¨à¥‡ à¤²à¤¿à¤ à¤²à¤¾à¤¨à¥à¤¸à¥à¤°à¤¾à¤®à¤°à¥à¤¸ à¤•à¥‡ à¤²à¤¿à¤ à¤²à¤¾à¤à¤¿à¤ à¤†à¤µà¤¶à¥à¤¯à¤• à¤¹à¥ˆ, à¤¬à¤²à¥à¤•à¤¿ à¤‰à¤¨ à¤²à¥‹à¤—à¥‹à¤‚, à¤•à¥‡ à¤²à¤¿à¤ à¤²à¤¾à¤à¤¿à¤ à¤®à¤¹à¤¤à¥à¤µà¤ªà¥‚à¤°à¥à¤£ à¤¹à¥ˆ à¤œà¥‹ à¤¤à¤•à¤¨à¥€à¤•à¥€ à¤¦à¥à¤¨à¤¿à¤¯à¤¾ à¤®à¥‡à¤, à¤•à¤¦à¤® à¤°à¤–à¤¨à¥¾ à¤šà¤¾à¤¹à¤¤à¥‡ à¤¹à¥ˆà¤, à¥¤ à¤‡à¤¸ à¤²à¥‡à¤– à¤•à¥‡ à¤®à¤¾à¤§à¥à¤¯à¤® à¤¸à¥‡ à¤¹à¤® OOP à¤•à¥€ à¤¬à¥à¤¨à¤¿à¤¯à¤¾à¤¦à¥€ à¤…à¤µà¤§à¤¾à¤°à¤£à¤¾à¤“à¤, à¤•à¥‹ à¤¸à¤°à¤² à¤”à¤° à¤¸à¥à¤ªà¤·à¥à¤Ÿ à¤à¤¾à¤·à¤¾ à¤®à¥‡à¤, à¤¸à¤®à¤à¤¾à¤¨à¥‡ à¤•à¥‡ à¤•à¥‹à¤¶à¤¿à¤¶ à¤•à¥€ à¤¹à¥ˆà¥¤

à¤µà¤¸à¥à¤¤à¥-à¤‰à¤¨à¥à¤®à¥à¤–à¤¾à¥‹à¤—à¤¾à¤®à¤¿à¤— à¤•à¥‡ à¤¸à¤®à¤à¤¨à¥‡ à¤¸à¥‡ à¤¹à¤®:

à¤¹à¤¿à¤‚à¤¦à¥€ à¤®à¥‡à¤‚ à¤¸à¤®à¤□à¥‡à¤‚

à¤ªà¥□à¤°à¥‹à¤—à¥□à¤°à¤¾à¤®à¤¿à¤‚à¤— à¤•à¥€ à¤¦à¥□à¤¨à¤¿à¤¯à¤¾à¤ँ à¤®à¥‡à¤‚,, à¤µà¤¸à¥□à¤¤à¥□-à¤‰à¤¨à¥□à¤®à¥□à¤– à¤ªà¥□à¤°à¥‹à¤—à¥□à¤°à¤¾à¤®à¤¿à¤‚à¤— (Object-Oriented Programming, OOP) à¤□à¤• à¤□à¤¸à¥€ à¤µà¤¿à¤§à¤¿ à¤¹à¥^ à¤œà¥‹ à¤ªà¥□à¤°à¥‹à¤—à¥□à¤°à¤¾à¤®à¤¿à¤‚à¤— à¤•à¥‹ à¤…à¤§à¤¿à¤• à¤¸à¤°à¤² à¤”à¤° à¤¸à¤¹à¤œ à¤¬à¤¨à¤¾à¤à¤— à¤¹à¥^à¥¤ à¤¯à¤¹ à¤¹à¤¿à¤‚à¤¦à¥€ à¤µà¤¿à¤§à¤¿ à¤µà¤¾à¤¸à¥à¤¤à¤µà¤¿à¤• à¤¦à¥□à¤¨à¤¿à¤¯à¤¾à¤ँ à¤”à¤° à¤‰à¤¨à¥•à¥‡ à¤¬à¥€à¤š à¤•à¥‡ à¤¸à¤à¤¨à¤¾à¤§à¥‹à¤, à¤ªà¤° à¤†à¤§à¤¾à¤°à¤¿à¤¤ à¤¹à¥^à¥¤ à¤‡à¤¸à¤² à¤²à¤¿à¤ à¤®à¥‡à¤‚ à¤µà¤¸à¥□à¤¤à¥□-à¤‰à¤¨à¥□à¤®à¥□à¤– à¤ªà¥□à¤°à¥‹à¤—à¥□à¤°à¤¾à¤®à¤¿à¤‚à¤— à¤•à¥‡ à¤ªà¥□à¤°à¤¾à¤®à¥□à¤– à¤¸à¤¿à¤¦à¥□à¤§à¤¾à¤‚à¤¤à¥‹à¤, à¤•à¥‹ à¤¹à¤¿à¤‚à¤¦à¥€ à¤®à¥‡à¤‚, à¤µà¤¿à¤¸à¥□à¤¤à¥□à¤°à¥‹ à¤¸à¥‡ à¤¸à¤®à¤□à¥‡à¤‚,à¤—à¥‡, à¤œà¤¿à¤¸à¥‡ à¤†à¤ª à¤‡à¤¸à¥ à¤…à¤µà¤§à¤¾à¤°à¤£à¤¾ à¤•à¥‹ à¤¬à¥‡à¤¹à¤¤à¤° à¤¢à¤,à¤— à¤¸à¥‡ à¤¸à¤®à¤□ à¤¸à¤•à¥‡à¤,à¥¤

à¤µà¤¸à¥□à¤¤à¥□-à¤‰à¤¨à¥□à¤®à¥□à¤– à¤ªà¥□à¤°à¥‹à¤—à¥□à¤°à¤¾à¤®à¤¿à¤‚à¤— à¤•à¥‡ à¤¸à¤¿à¤¦à¥□à¤§à¤¾à¤‚à¤¤à¥□

à¤µà¤¸à¥□à¤¤à¥□-à¤‰à¤¨à¥□à¤®à¥□à¤– à¤ªà¥□à¤°à¥‹à¤—à¥□à¤°à¤¾à¤®à¤¿à¤‚à¤— à¤•à¥‡ à¤¤à¤¾à¤®à¤¸à¤¿à¤• à¤®à¥‡à¤‚à¤à¤¤à¤¿à¤•à¤¤à¤¾ à¤¹à¥^à¥¤: à¤…à¤-à¤¿à¤•à¤²à¥□à¤ª (Encapsulation), à¤µà¤¿à¤°à¤¾à¤¸à¤¤à¤ (Inheritance), à¤¬à¤¹à¥□à¤°à¥,à¤ªà¤¤à¤¾ (Polymorphism), à¤”à¤° à¤¸à¤,à¤¯à¥‹à¤œà¤¨ (Composition)à¥¤ à¤‡à¤¨ à¤¸à¤¿à¤¦à¥□à¤§à¤¾à¤,à¤¤à¥‹à¤, à¤•à¥‹ à¤¸à¤®à¤□à¤¾ à¤µà¤¸à¥□à¤¤à¥□-à¤‰à¤¨à¥□à¤®à¥□à¤–

à¤ªà¥à¤°à¥‹à¤—à¥à¤°à¤¾à¤®à¤¿à¤,à¤— à¤•à¥‹ à¤¸à¤®à¤à¤¨à¥‡ à¤•à¥‡ à¤²à¤¿à¤ à¤¨à¤¿à¤¯à¤®à¥‹à¤¨à¥à¤¯à¤¾à¤¸ à¤†à¤µà¤¶à¥à¤¯à¤• à¤¹à¥ˆà¥¤

à¤…à¤à¤¿à¤•à¤²à¥à¤ª (Encapsulation)

à¤…à¤à¤¿à¤•à¤²à¥à¤ª à¤•à¤¾ à¤®à¤¤à¤²à¤¬ à¤¹à¥ˆ à¤¡à¥‡à¤Ÿà¤¾ à¤•à¥‹ à¤¸à¥à¤°à¤•à¥à¤·à¤¿à¤¤ à¤°à¤–à¤¨à¤¾ à¤”à¤° à¤•à¥‡à¤µà¤²
à¤†à¤µà¤¶à¥à¤¯à¤• à¤¨à¤¾à¤• à¤•à¤°à¥€à¤•à¥‹à¤, à¤•à¥‡ à¤®à¤¾à¤§à¥à¤¯à¤®
à¤¸à¥‡ à¤‰à¤¸ à¤•à¤¾ à¤ªà¤¹à¥à¤šà¤¨à¤¾à¥¤ à¤¹à¤¾à¤¨à¤¿à¤•à¤¾à¤°à¤• à¤”à¤° à¤•à¥‡à¤µà¤²
à¤†à¤µà¤¶à¥à¤¯à¤• à¤¨à¤¾à¤• à¤•à¤°à¥€à¤•à¥‹à¤, à¤•à¥‹ à¤‰à¤¸à¤¾à¤¨à¥à¤§
à¤•à¤°à¤¾à¤•à¤° à¤•à¤¿à¤¯à¤¾ à¤œà¤¾à¤¤à¤¾ à¤¹à¥ˆà¥¤
à¤ à¤¦à¤¾à¤¹à¤°à¤£ à¤•à¥‡ à¤²à¤¿à¤, à¤à¤• à¤¬à¥ˆà¤,à¤•
à¤–à¤¾à¤¤à¥‡ à¤•à¥€ à¤œà¤¾à¤¤à¤¾à¤°à¥€ à¤•à¥‹ à¤•à¥‡à¤µà¤²
à¤¬à¥ˆà¤,à¤• à¤•à¥‡ à¤•à¤°à¥à¤®à¤šà¤¾à¤°à¤¿à¤¯à¥‹à¤, à¤•à¥‡
à¤²à¤¿à¤ à¤ à¤ªà¤²à¤¬à¥à¤§ à¤•à¤°à¤¾à¤° à¤œà¤¾à¤¤à¤¾
à¤¹à¥ˆ, à¤œà¤¬à¤•à¤¿ à¤—à¥à¤°à¤¾à¤¹à¤• à¤•à¥‡à¤µà¤²
à¤…à¤ªà¤¨à¥€ à¤œà¤¾à¤¤à¤¾à¤°à¥€ à¤•à¤• à¤ªà¤¹à¥à¤š
à¤¸à¤•à¤¤à¤¾ à¤¹à¥ˆà¥¤

à¤µà¤¿à¤°à¤¾à¤¸à¤¤ (Inheritance)

à¤µà¤¿à¤°à¤¾à¤¸à¤¤ à¤•à¤¾ à¤®à¤¤à¤²à¤¬ à¤¹à¥ˆ à¤ à¤•
à¤µà¤¸à¥à¤¤à¥ à¤¸à¥‡ à¤¦à¥‚à¤°à¥€ à¤µà¤¸à¥à¤¤à¥ à¤®à¥‡à¤à¤,
à¤—à¥à¤£à¥‹à¤, à¤•à¤¾ à¤¸à¥à¤¤à¤¾à¤¨à¤¾à¤,à¤¤à¤°à¤£à¥¤ à¤¯à¤¹
à¤¨à¤ˆ à¤µà¤¸à¥à¤¤à¥ à¤“à¤, à¤•à¥‹ à¤ªà¤¹à¤²à¤¾à¥¤ à¤¸à¥‡
à¤®à¥Œà¤œà¥‚à¤¦ à¤µà¤¸à¥à¤¤à¥ à¤“à¤, à¤•à¥‡ à¤—à¥à¤£à¥‹à¤,
à¤•à¤¾ à¤‰à¤ªà¤¯à¥‹à¤— à¤•à¤°à¤•à¥‡ à¤¬à¤¨à¤¾à¤¨à¤¾ à¤¸à¤,à¤-
à¤µ à¤¬à¤¨à¤¾à¤¤à¤¾ à¤¹à¥ˆà¥¤ à¤ à¤¦à¤¾à¤¹à¤°à¤£ à¤•à¥‡
à¤²à¤¿à¤, à¤ à¤• 'à¤ªà¤¶à¥' à¤µà¤°à¥à¤— à¤¸à¥‡
'à¤•à¥à¤¤à¥à¤¤à¤¾' à¤”à¤° 'à¤¬à¤¿à¤²à¥à¤²à¥€'
à¤µà¤°à¥à¤—à¥‹à¤, à¤•à¥‹ à¤µà¤¿à¤°à¤¾à¤¸à¤¤ à¤®à¥‡à¤, à¤®à¤¿à¤²
à¤¸à¥‡à¤¤à¥à¤ à¤¹à¥ˆà¤‚,, à¤œà¤¹à¤¾à¤, 'à¤ªà¤¶à¥' à¤µà¤°à¥à¤—

à¤®à¥‡à¤, à¤¸à¤¾à¤®à¤¾à¤¨à¥à¤¯ à¤—à¥à¤£ à¤¹à¥‹à¤¤à¥‡ à¤¹à¥ˆà¤, à¤”à¤° 'à¤•à¥à¤¤à¥à¤¤à¤¾' à¤”à¤° 'à¤¬à¤¿à¤²à¥à¤²à¥€' à¤µà¤°à¥à¤— à¤®à¥‡à¤, à¤µà¤¿à¤¶à¤¿à¤·à¥à¤Ÿ à¤—à¥à¤£ à¤¹à¥‹à¤¤à¥‡ à¤¹à¥ˆà¤,à¥¤

à¤¬à¤¹à¥à¤°à¥‚à¤ªà¤¤à¤¾ (Polymorphism)

à¤¬à¤¹à¥à¤°à¥‚à¤ªà¤¤à¤¾ à¤•à¤¾ à¤®à¤¤à¤²à¤¬ à¤¹à¥ˆ à¤•à¤¿ à¤•à¥€ à¤µà¤¿à¤§à¤¿ à¤•à¥‹ à¤µà¤¿à¤à¤¿à¤¨ à¤¤à¤°à¥€à¤•à¤•à¥‹à¤, à¤¸à¥‡ à¤‰à¤ªà¤¯à¥‹à¤— à¤•à¤°à¤¨à¤¾ à¤¯à¤¹ à¤•à¤¹ à¤µà¤¿à¤§à¤¿ à¤•à¤¾ à¤µà¤¿à¤§à¤¿ à¤•à¥‹ à¤ªà¥à¤°à¤•à¤¾à¤°à¤¤à¤¾ à¤•à¥‡ à¤‡à¤¨à¤ªà¥à¤Ÿ à¤•à¥‡ à¤²à¤¿à¤ à¤…à¤²à¤—-à¤…à¤²à¤— à¤¤à¤°à¥€à¤•à¤•à¥‡ à¤¸à¥‡ à¤•à¤°à¤¨à¤¾ à¤•à¤°à¤¨à¥‡ à¤•à¥€ à¤…à¥à¤®à¤¤à¤¿ à¤¦à¥‡à¤¤à¤¾ à¤¹à¥ˆà¤¤à¤¾ à¤•à¤¿ à¤•à¥‡ à¤…à¤¨à¥à¤®à¤¾à¤¨ à¤¦à¤¿à¤¤à¤Ÿà¤¾ (à¤œà¥ˆà¤¸à¥‡, à¤¸à¤,à¤–à¥à¤¯à¤¾, à¤ªà¤¾à¤ , à¤†à¤¦à¤¿) à¤•à¥‡ à¤²à¤¿à¤à¤¿ à¤…à¤²à¤—-à¤…à¤²à¤— à¤¤à¤°à¥€à¤•à¤•à¥‡ à¤¸à¥‡ à¤‰à¤ªà¤¯à¥‹à¤— à¤•à¤¿à¤¯à¤¾ à¤œà¤¾à¤à¤¤à¤¾ à¤¹à¥ˆà¥¤

à¤¸à¤,à¤¯à¥‹à¤œà¤¨ (Composition)

à¤¸à¤,à¤¯à¥‹à¤œà¤¨ à¤•à¤¾ à¤®à¤¤à¤²à¤¬ à¤¹à¥ˆ à¤µà¤¿à¤-à¤¿à¤¨à¥à¤¨ à¤µà¤¸à¥à¤à¤“à¤, à¤•à¥‹ à¤®à¤¿à¤²à¤¾à¤•à¤° à¤•à¤¾à¤°à¥à¤¯ à¤•à¤¨à¥à¤¨à¥ à¤¯à¤¦à¤¿ à¤¨à¤¨à¥à¤¨à¥à¤ à¤¯à¤¹ à¤µà¤¿à¤§à¤¿ à¤µà¤¸à¥à¤à¤“à¤, à¤•à¥‡ à¤¨à¥€à¤šà¥ à¤•à¥‡ à¤¸à¤,à¤¨à¤,à¤§à¥‹à¤, à¤•à¥‹ à¤ªà¥à¤°à¤¿à¤¤à¤¿à¤¤ à¤•à¤°à¤¤à¤¾ à¤¹à¥ˆà¤ à¤”à¤° à¤‰à¤¨à¥à¤¹à¥‡à¤, à¤•à¥‡ à¤•à¥‡ à¤¸à¤¾à¤°à¥à¤¥à¤ à¤•à¤°à¤¨à¥‡ à¤•à¥€ à¤…à¤¨à¥à¤®à¤¤à¤¿ à¤¦à¥‡à¤¤à¤¾ à¤¹à¥ˆà¤¤à¤¾ à¤•à¤¿ à¤•à¥‡ à¤²à¤¿à¤ à¤…à¤²à¤—-à¤…à¤²à¤— à¤¤à¤°à¥€à¤•à¤•à¥‡ à¤¸à¥‡ à¤•à¤°à¤¨à¤¾ à¤•à¤°à¤¨à¥‡ à¤•à¥€ à¤…à¥à¤®à¤¤à¤¿ à¤¦à¥‡à¤¤à¤¾ à¤¹à¥ˆà¤¤à¤¾ à¤•à¤¿ à¤•à¥‡ à¤²à¤¿à¤ à¤…à¤²à¤—-à¤…à¤²à¤— à¤¤à¤°à¥€à¤•à¤•à¥‡ à¤¸à¥‡ à¤•à¤°à¤¨à¤¾ à¤•à¤°à¤¨à¥‡ à¤•à¥‹ à¤®à¤¿à¤²à¤¾à¤•à¤° à¤•à¤¾à¤°à¥à¤¯ à¤•à¤¨à¥à¤¨à¥

à¤ªà¤¹à¤¿à¤□, à¤”à¤° à¤…à¤¨à¥□à¤¯ à¤˜à¤Ÿà¤•à¥‹à¤, à¤•à¥‹
à¤¸à¤,à¤¯à¥‹à¤œà¤¿à¤¤ à¤•à¤¿à¤¯à¤¾ à¤œà¤¾ à¤¸à¤•à¤¤à¤¾
à¤¹à¥^à¥¤

à¤µà¤¸à¥□à¤¤à¥□-à¤‰à¤¨à¥□à¤®à¥□à¤-à¤ªà¥□à¤°à¥‹à¤—à¥□à¤°à¤¾à¤®à¤¿à¤,à¤— à¤•à¥‡ à¤«à¤¾à¤¯à¤¦à¥‡

à¤µà¤¸à¥□à¤¤à¥□-à¤‰à¤¨à¥□à¤®à¥□à¤–
à¤ªà¥□à¤°à¥‹à¤—à¥□à¤°à¤¾à¤®à¤¿à¤,à¤— à¤•à¥‡ à¤•à¥^
à¤«à¤¾à¤¯à¤¦à¥‡ à¤¹à¥^à¤,, à¤œà¤¿à¤¨à¥à¤®à¥‡à¤à¤, à¤¸à¥‡ à¤•à¥□à¤›
à¤¨à¤¿à¤®à¥□à¤¨à¤²à¤¿à¤–à¤¿à¤¤ à¤¹à¥^à¤,:

1. à¤•à¥‹à¤¡ à¤•à¥‹ à¤…à¤§à¤¿à¤• à¤¸à¤,à¤—à¤ à¤¿à¤¤ à¤”à¤° à¤ªà¤¢à¤¼à¤¨à¥‡ à¤¯à¥‹à¤—à¥ à¤¬à¤¨à¤¾à¤¤à¤¾ à¤¹à¥^à¥¤
2. à¤•à¥‹à¤¡ à¤•à¥‹ à¤ªà¥□à¤¨à¤ƒ à¤‰à¤ªà¤¯à¥‹à¤— à¤•à¤°à¤¨à¥‡ à¤®à¥‡à¤à¤, à¤†à¤¸à¤¾à¤¨ à¤¬à¤¨à¤¾à¤¤à¤¾ à¤¹à¥^à¥¤
3. à¤•à¥‹à¤¡ à¤•à¥‹ à¤¬à¤¨à¤¾à¤□ à¤°à¤–à¤¨à¤¾ à¤”à¤° à¤…à¤ªà¤¡à¥‡à¤Ÿ à¤•à¤°à¤¨à¤¾ à¤†à¤¸à¤¾à¤¨ à¤¬à¤¨à¤¾à¤¤à¤¾ à¤¹à¥^à¥¤
4. à¤•à¥‹à¤¡ à¤•à¥‹ à¤…à¤§à¤¿à¤• à¤¸à¥□à¤°à¤•à¥□à¤·à¤¿à¤¤ à¤”à¤° à¤µà¤¿à¤¶à¥□à¤µà¤¸à¤¨à¥€à¤¯ à¤¬à¤¨à¤¾à¤¤à¤¾ à¤¹à¥^à¥¤

à¤µà¤¸à¥□à¤¤à¥□-à¤‰à¤¨à¥□à¤®à¥□à¤-à¤ªà¥□à¤°à¥‹à¤—à¥□à¤°à¤¾à¤®à¤¿à¤,à¤— à¤•à¥‡ à¤‰à¤¦à¤¾à¤¹à¤°à¤£

à¤µà¤¸à¥□à¤¤à¥□-à¤‰à¤¨à¥□à¤®à¥□à¤–
à¤ªà¥□à¤°à¥‹à¤—à¥□à¤°à¤¾à¤®à¤¿à¤,à¤— à¤•à¥‡
à¤‰à¤¦à¤¾à¤¹à¤°à¤£à¥‹à¤, à¤•à¥‹ à¤¸à¤®à¤□à¤¨à¥‡ à¤•à¥‡ à¤²à¤¿à¤□,
à¤¹à¤® à¤□à¤• à¤¸à¤°à¤² à¤ à¤¦à¤¾à¤¹à¤°à¤£ à¤²à¥‡ à¤¸à¤•à¤¤à¥‡

à¤¹à¥ˆà¤,à¥¤ à¤®à¤¾à¤¨ à¤²à¥‡à¤, à¤•à¤¿ à¤¹à¤® à¤□à¤• 'à¤µà¤¿à¤¦à¥□à¤¯à¤¾à¤°à¥□à¤¥à¥€' à¤µà¤°à¥□à¤— à¤¬à¤¨à¤¾à¤¾à¤¾ à¤šà¤¾à¤¹à¤¤à¥‡ à¤¹à¥ˆà¤,à¥¤ à¤‡à¤¸ à¤µà¤°à¥□à¤— à¤®à¥‡à¤‡à¤, à¤µà¤¿à¤¦à¥□à¤¯à¤°à¥□à¥€ à¤•à¥‡ à¤¨à¤¾à¤®, à¤‰à¤®à¥‡à¤°, à¤”à¤° à¤—à¥□à¤°à¥‡à¤¡à¤¡ à¤œà¥ˆà¤¸à¥‡ à¤—à¥□à¤£ à¤¹à¥‹ à¤¸à¤•à¤¤à¥‡ à¤¹à¥ˆà¤,à¥¤ à¤‡à¤¸à¤•à¥‡ à¤…à¤²à¤µà¤¾à¤ à¤•à¤°à¤¨à¤¾ à¤®à¥‡à¤, à¤ªà¤¢à¤¼à¤¾à¤ à¤•à¤°à¤¨à¥‡, à¤–à¥‡à¤²à¤¨à¥‡, à¤”à¤° à¤¸à¥‹à¤¨à¥‡ à¤œà¥ˆà¤¸à¥‡ à¤¤à¤°à¥€à¤•à¥‡ à¤¹à¥‹ à¤¸à¤•à¤¤à¥‡ à¤¹à¥ˆà¤,à¥¤

à¤‡à¤¸ à¤ªà¥□à¤°à¤•à¤¾à¤°, à¤µà¤¸à¥□à¤¤à¥□-à¤‰à¤¨à¥□à¤®à¥□à¤–à¤ªà¥□à¤°à¥‹à¤—à¥□à¤°à¤¾à¤®à¤¿à¤,à¤— à¤•à¥‹ à¤¸à¤®à¤□à¤¨à¤¾ à¤”à¤° à¤‰à¤ªà¤¯à¥‹à¤— à¤•à¤°à¤¨à¤¾ à¤ªà¥□à¤°à¥‹à¤—à¥□à¤°à¤¾à¤®à¤¿à¤,à¤— à¤•à¥‹ à¤…à¤§à¤¿à¤• à¤¸à¤°à¤² à¤”à¤° à¤ªà¥□à¤°à¤à¤à¤¾à¤µà¥€ à¤¬à¤¨à¤¾à¤¤à¤à¤¾ à¤¹à¥ˆà¥¤ à¤¯à¤¹ à¤µà¤¿à¤¦à¥□à¤¯à¤¾à¤°à¥□à¥€ à¤•à¥‡ à¤µà¤¸à¥□à¤“à¤, à¤”à¤° à¤ à¤•à¥‡ à¤•à¥‡ à¤¬à¥€à¤šà¤•à¥‡ à¤¸à¤¾à¤¥ à¤¸à¤¬à¤§à¥‹à¤, à¤ªà¤° à¤†à¤§à¤¾à¤¿à¤¤ à¤¹à¥ˆ, à¤œà¤¿à¤¸à¥‡ à¤ªà¥□à¤°à¥‹à¤—à¥□à¤°à¤¾à¤®à¤¿à¤,à¤— à¤•à¥‹ à¤…à¤§à¤¿à¤• à¤¸à¤°à¤² à¤¿à¤¤ à¤”à¤° à¤ªà¤¢à¤¼à¤¨à¥‡ à¤¯à¤¾à¤¨à¤¾ à¤¹à¥ˆà¥¤

à¤‘à¤¬à¥□à¤œà¥‡à¤•à¥□à¤Ÿà¤“à¤°à¤¿à¤□à¤,à¤Ÿà¥‡à¤¡à¥□à¤°à¥‹à¤—à¥□à¤°à¤¾à¤®à¤¿à¤,à¤—

à¤•à¥‰à¤¨à¥à¤¸à¥‡à¤ªà¥à¤Ÿà¥à¤¸ à¤•à¤¾ à¤µà¤¿à¤¶à¥à¤²à¥‡à¤·à¤£ à¤¹à¤¿à¤‚à¤¦à¥€ à¤®à¥‡à¤‚,

à¤‘à¤¬à¥à¤œà¥‡à¤•à¥à¤Ÿ à¤“à¤°à¤¿à¤à¤‚à¤Ÿà¥‡à¤¡ à¤ªà¥à¤°à¥‹à¤—à¥à¤°à¤¾à¤®à¤¿à¤‚à¤— (OOP) à¤¤à¤•à¤¨à¥€à¤•à¤•à¥€ à¤¦à¥à¤¨à¤¿à¤¯à¤¾ à¤®à¥‡à¤‚, à¤à¤• à¤•à¥à¤°à¤¾à¤‚à¤¤à¤•à¤¾à¥€ à¤¬à¤¦à¤²à¤¾à¤µ à¤²à¥‡à¤•à¤° à¤†à¤ à¤¹à¥ˆ, à¤œà¤¿à¤¸à¤¨à¥‡ à¤¸à¥‰à¤«à¥à¤Ÿà¤µà¥‡à¤¯à¤° à¤µà¤¿à¤•à¤¾à¤¸ à¤•à¥‡ à¤¤à¤°à¥€à¤•à¤•à¥‹, à¤•à¥‹ à¤®à¥,à¤² à¤°à¥,à¤ª à¤¸à¥‡ à¤¬à¤¦à¤² à¤¦à¤¿à¤¯à¤¾ à¤¹à¥ˆà¥¤ OOP à¤¨à¥‡ à¤ªà¥à¤°à¥‹à¤—à¥à¤°à¤¾à¤®à¤¿à¤‚à¤— à¤•à¥‹ à¤¨ à¤•à¥‡à¤µà¤² à¤…à¤§à¤¿à¤• à¤®à¥‰à¤¡à¥à¤¯à¥,à¤²à¤° à¤”à¤° à¤ªà¥à¤¨: à¤‰à¤ªà¥‹à¤—à¥€ à¤¬à¤¨à¤¾à¤¤à¤¾ à¤¹à¥ˆà¥¤ à¤¬à¤¹à¥ˆà¤¤à¤¾ à¤•à¤¿à¤œà¤¿à¤¸à¤¸à¥‡ à¤•à¥‹à¥€ à¤ªà¥à¤°à¤¾à¤®à¤¿à¤‚à¤— à¤•à¥‹ à¤®à¥‰à¤¡à¥à¤¯à¥,à¤²à¤° à¤”à¤° à¤ªà¥à¤¨à¤à¤¸à¥‡ à¤•à¤¿à¤¸à¥€ à¤à¤• à¤‡à¤•à¤¾à¤ˆ à¤•à¥‡ à¤°à¥‚à¤ª à¤•à¥‹ à¤‰à¤¸à¤•à¥‡ à¤•à¤¾à¤°à¥à¤¯à¥‹à¤‚ à¤•à¥‡ à¤…à¤¨à¥à¤°à¥‚à¤ª à¤…à¤²à¤—-à¤…à¤²à¤— à¤‡à¤•à¤¾à¤ˆà¤¯à¥‹à¤‚ à¤•à¥‹ à¤•à¤¾à¤°à¥à¤¯à¥‹à¤‚ à¤•à¥‡ à¤®à¤¿à¤²à¤¾à¤“à¤, à¤ªà¥à¤° à¤à¥€ à¤µà¤¿à¤šà¤¾à¤°à¤¾à¤•à¥‡à¤¤à¥‡à¤‚, à¤…à¤²à¤—à¥‡à¤¤à¥

OOP à¤•à¥€ à¤‰à¤¤à¥à¤ªà¤¤à¥à¤¤à¥à¤¤à¤¿ à¤”à¤° à¤‡à¤¤à¤¿à¤¹à¤¾à¤¸

1970 à¤•à¥‡ à¤¦à¤¶à¤• à¤®à¥‡à¤‚,, à¤¸à¤¿à¤®à¥à¤²à¤¾ à¤”à¤°

à¤¬à¤¾à¤¦ à¤®à¥‡à¤, à¤¸à¥à¤®à¥‰à¤²à¤Ÿà¥‰à¤• à¤œà¥ˆà¤¸à¥€ à¤-à¤¾à¤·à¤¾à¤“à¤, à¤•à¥‡ à¤µà¤¿à¤•à¤¾à¤¸ à¤•à¥‡ à¤¸à¤¾à¤¥ OOP à¤•à¥€ à¤¶à¥à¤°à¥à¤†à¤¤ à¤¹à¥à¤à¥¤ à¤¯à¤¹ à¤ªà¥ˆà¤°à¤¾à¤‡à¤® à¤ªà¤¾à¤°à¤,à¤ªà¤°à¤¿à¤•à¤ªà¥à¤°à¤•à¥à¤°à¤¿à¤¯à¤¾à¤“à¤‚ à¤•à¥‡ à¤®à¤¾à¤§à¥à¤¯à¥à¤®à¥‡à¤— à¤•à¥€ à¤œà¤Ÿà¤¿à¤²à¤¤à¤¾à¤“à¤, à¤•à¥‹ à¤•à¤® à¤•à¤°à¤¨à¥‡ à¤•à¥‡ à¤²à¤¿à¤ à¤•à¤¿à¤¸à¤¾à¤¥ à¤•à¥‡ à¤…à¤§à¤¿à¤•à¤¾à¤‚à¤¶ à¤•à¥‡ à¤…à¤¨à¥à¤°à¥‚à¤ª

à¤ªà¥à¤°à¤¬à¤§à¤¨à¤¯à¤¯à¤¯ à¤¹à¤¿à¤¸à¥à¤¯à¤, à¤®à¥‡à¤, à¤¬à¤¾à¤à¤Ÿà¤¨à¥‡ à¤®à¥‡à¤, à¤®à¤¦à¤¦ à¤•à¤°à¤¤à¤¾ à¤¹à¥ˆà¥¤

à¤‡à¤¨à¤•à¥ˆà¤ªà¥à¤¸à¥à¤²à¥‡à¤¶à¤¨ à¤”à¤° à¤¸à¥à¤°à¤•à¥à¤·à¤¾

à¤‡à¤¨à¤•à¥ˆà¤ªà¥à¤¸à¥à¤²à¥‡à¤¶à¤¨ à¤¡à¥‡à¤Ÿà¤¾ à¤”à¤° à¤®à¥‡à¤¥à¤¡à¥à¤¸ à¤•à¥‹ à¤à¤• à¤•à¥à¤²à¤¾à¤¸ à¤•à¥‡ à¤¨à¤¾à¤®à¤¾à¤à¤¾ à¤”à¤° à¤¬à¤¾à¤¹à¤°à¥€ à¤¹à¤¿à¤¸à¥à¤¸à¥‡ à¤•à¤°à¤¨à¥‡ à¤•à¥‡ à¤²à¤¿à¤ à¤•à¤°à¤¤à¤¾ à¤¹à¥ˆà¥¤ à¤¯à¤¹ à¤…à¤–à¤¡à¤¤à¤¾ à¤¬à¤¨à¤¾à¤à¤ à¤–à¤¾à¤¤à¥‡ à¤•à¤¾ à¤®à¤¹à¤¤à¥à¤µà¤ªà¥à¤°à¤£ à¤®à¤¾à¤§à¥à¤¯à¤® à¤¹à¥ˆà¥¤ à¤‡à¤¸ à¤¸à¤¾à¤¥ à¤¹à¤¿à¤¸à¥à¤¸à¥‡ à¤•à¥‡ à¤¬à¤¿à¤¨à¤¾, à¤•à¥‹à¤¡ à¤•à¥€ à¤¸à¤°à¤•à¥à¤·à¤¾ à¤”à¤° à¤µà¤¿à¤¶à¥à¤µà¤¸à¤¨à¥€à¤¯à¤¤à¤¾ à¤ªà¤° à¤ªà¥à¤°à¤¶à¥à¤¨ à¤šà¤¿à¤¨à¥à¤¹ à¤²à¤— à¤¸à¥à¤¥à¤¾ à¤¹à¥ˆà¥¤

à¤‡à¤¨à¤¹à¥‡à¤°à¤¿à¤Ÿà¥‡à¤,à¤¸ à¤”à¤° à¤•à¥‹à¤¡ à¤ªà¥à¤¨: à¤‰à¤ªà¤¯à¥‹à¤—

à¤‡à¤¨à¤¹à¥‡à¤°à¤¿à¤Ÿà¥‡à¤,à¤¸ à¤•à¥‡ à¤®à¤¾à¤§à¥à¤¯à¤® à¤¸à¥‡, à¤à¤• à¤•à¥à¤²à¤¾à¤¸ à¤•à¥‡ à¤²à¤¿à¤ à¤•à¤°à¤¤à¤¾ à¤•à¥‹ à¤ªà¥à¤°à¤¾à¤®à¤¾à¤£à¤¿à¤• à¤”à¤° à¤µà¥à¤¯à¤¾à¤µà¤¹à¤¾à¤°à¤¿à¤• à¤•à¥‹ à¤µà¤¿à¤¶à¥à¤µà¤¸à¤¨à¥€à¤¯ à¤¹à¥ˆà¥¤ à¤‡à¤¸ à¤…à¤§à¥à¤¯à¤¾à¤¯ à¤®à¥‡à¤‚ à¤¹à¤® à¤•à¤¿à¤¸à¥€ à¤•à¥‹ à¤à¤• à¤•à¥à¤²à¤¾à¤¸ à¤•à¥‡ à¤²à¤¿à¤ à¤•à¤°à¤¨à¥‡ à¤•à¥‡ à¤²à¤¿à¤ à¤•à¤¿à¤¸ à¤•à¥‹à¤¡ à¤•à¥‹ à¤…à¤²à¤—-à¤…à¤²à¤— à¤«à¤¾à¤‡à¤²à¥‹à¤‚ à¤®à¥‡à¤‚ à¤²à¤¿à¤�à¤¨à¥‡ à¤•à¤¾ à¤…à¤à¥ˆà¤¸à¤¾ à¤•à¥à¤¯à¤¾ à¤•à¤¿à¤¯à¤¾ à¤œà¤¾à¤à¥ˆà¥¤

à¤ªà¥‰à¤²à¤¿à¤®à¥‰à¤°à¥à¤«à¤¿à¤œà¥à¤® à¤”à¤° à¤¸à¤¿à¤¸à¥à¤Ÿà¤® à¤•à¥€ à¤²à¤šà¥€à¤²à¤¾à¤ªà¤¨

à¤ªà¥‰à¤²à¤¿à¤®à¥‰à¤°à¥à¤«à¤¿à¤œà¥à¤® à¤ªà¥à¤°à¤¾à¤®à¤® à¤•à¥‹ à¤²à¤šà¥€à¤²à¤¾ à¤¬à¤¨à¤¾à¤¨à¤¾ à¤¹à¥^, à¤œà¤¿à¤¸à¥‡ à¤µà¤¿à¤à¤¿à¤¨à¥à¤¨ à¤‘à¤¬à¥à¤œà¥‡à¤•à¥à¤Ÿà¥à¤¸ à¤à¤¾à¤®à¤¾à¤¨à¥‡ à¤•à¤¾à¤®à¤¾à¤¨à¥‡ à¤•à¤¾à¤®à¤¾à¤¨à¥‡à¤‚

à¤”à¤° à¤†à¤°à¥à¤¥à¤¿à¤• à¤ªà¥à¤°à¤-à¤¾à¤µ

OOP à¤¨à¥‡ à¤¸à¥‰à¤«à¥à¤Ÿà¤µà¥‡à¤¯à¤° à¤µà¤¿à¤•à¤¾à¤¸ à¤•à¥‡ à¤•à¥à¤·à¥‡à¤¤à¥à¤° à¤®à¥‡à¤, à¤¦à¤•à¥à¤·à¤¤à¤¾ à¤¬à¤¢à¤¼à¤¾à¤ à¤¹à¥ˆ, à¤œà¤¿à¤¸à¤¸à¥‡ à¤•à¤,à¤ªà¤¨à¤¿à¤¯à¤¾à¤, à¤¤à¥‡à¤œà¥€ à¤¸à¥‡ à¤‰à¤¤à¥à¤ªà¤¾à¤¦ à¤µà¤¿à¤•à¤¸à¤¿à¤¤ à¤•à¤° à¤¸à¤•à¥€à¤,à¥¤ à¤¹à¤¿à¤,à¤¦à¥€ à¤œà¥ˆà¤¸à¥‡ à¤¸à¥‡à¥à¤¾à¤¨à¥€à¥€à¤¯ à¤à¤¾à¤·à¤¾à¤“à¤, à¤®à¥‡à¤, OOP à¤•à¥€ à¤¸à¤®à¤à¤¾ à¤¬à¤¹à¥à¤¤ à¤¸à¥‡ à¤¤à¤•à¤¨à¥€à¤•à¥€ à¤¶à¤¿à¤•à¥à¤·à¤¾ à¤•à¥€ à¤ªà¤¹à¥à¤²à¤,à¤š à¤µà¥à¤¯à¤¾à¤ªà¤• à¤¹à¥à¤ˆ à¤¹à¥ˆ, à¤œà¤¿à¤¸à¤¸à¥‡ à¤°à¥‹à¤œà¤—à¤¾à¤° à¤•à¥‡ à¤¨à¤µà¤¸à¤° à¤–à¥à¤²à¥‡ à¤¹à¥ˆà¤,à¥¤

à¤¨à¤¿à¤·à¥à¤•à¤°à¥à¤·

à¤‘à¤¬à¥à¤œà¥‡à¤•à¥à¤Ÿ à¤“à¤°à¤¿à¤à¤,à¤Ÿà¥‡à¤¡ à¤ªà¤°à¥‹à¤—à¤°à¤¾à¤®à¤¿à¤— à¤¨ à¤•à¥‡à¤µà¤² à¤¨à¤¨à¤¿à¤•à¤¾à¤¯ à¤•à¥‡ à¤•à¤¿à¤¸à¤¿ à¤¨à¤¿à¤¯à¤¾à¤, à¤¬à¤²à¥à¤•à¤¿ à¤¯à¤¹ à¤•à¤•à¥‡ à¤•à¤•à¥‡ à¤•à¤¿à¤¸à¤¿ à¤•à¤¾à¤¯ à¤®à¥‡à¤ à¤•à¤°à¤¾à¤¨à¥‡ à¤®à¥‡à¤, à¤‡à¤¸à¤¿à¤²à¥à¤§à¤¾à¤,à¤¤à¥‹à¤, à¤•à¥€ à¤µà¥à¤¯à¤¾à¤–à¥à¤¯à¤¾ à¤¹à¥ˆà¤ à¤•à¤¾à¤¯à¤·à¥à¤Ÿ à¤¹à¥‹à¤à¤¾ à¤•à¤¿ à¤¤à¤•à¥à¤¨à¥€à¤•à¥€ à¤œà¥à¤žà¤¾à¤¨ à¤•à¥‹ à¤¸à¥à¤¥à¤¾à¤¨à¥€à¤¯ à¤à¤¾à¤·à¤¾à¤®à¤¾à¤¨à¥à¤¯à¤¾à¤• à¤¹à¥‡à¤à¤¾ à¤•à¤¿à¤¸à¤¿ à¤¤à¤•à¤¨à¥€à¤• à¤œà¥à¤žà¤¾à¤¨ à¤•à¥‹ à¤¸à¤®à¤à¤¾à¤¨à¥‡ à¤•à¥‡ à¤²à¤¿à¤ à¤¬à¤¹à¥à¤¤ à¤¸à¥‡ à¤œà¥à¤¯à¤¾à¤¦à¤¾ à¤‰à¤¤à¥à¤ªà¤¾à¤¦ à¤•à¥‡ à¤²à¤¿à¤ à¤…à¤²à¤— à¤¤à¤§à¥à¤¯à¤¾à¤¨ à¤¦à¥‡à¤à¤¾ à¤•à¥‡à¤• à¤•à¤¾ à¤²à¤à¤¾ à¤‰à¤ à¤¾à¤à¤¾ à¤‰à¤ à¤¾à¤à¤¾ à¤•à¥‡à¤• à¤•à¤¾ à¤•à¥‡à¤• à¤•à¤¾ à¤•à¥‡à¤• à¤•

à¤µà¤¸à¥à¤¤à¥-à¤‰à¤¨à¥à¤®à¥à¤-à¤ªà¥à¤°à¥‹à¤—à¥à¤°à¤¾à¤®à¤¿à¤,à¤— à¤•à¥‡ à¤¸à¤¿à¤¦à¥à¤§à¤¾à¤,à¤¤: à¤à¤• à¤—à¤¹à¤¨ à¤µà¤¿à¤¶à¥à¤²à¥à¤·à¤£

à¤µà¤¸à¥à¤¤à¥-à¤‰à¤¨à¥à¤®à¥à¤-à¤ªà¥à¤°à¥‹à¤—à¥à¤°à¤¾à¤®à¤¿à¤,à¤— (Object-Oriented Programming, OOP) à¤†à¤§à¥à¤¨à¤¿à¤• à¤¸à¥‰à¤«à¥à¤Ÿà¤µà¥‡à¤¯à¤° à¤µà¤¿à¤•à¤¾à¤¸ à¤•à¤¾ à¤®à¤¹à¤¤à¥à¤µà¤ªà¥,à¤°à¥à¤£ à¤¹à¤¿à¤¸à¥à¤¸à¤¾ à¤¹à¥ˆà¥¤ à¤¯à¤¹ à¤…à¤¨à¥à¤®à¤¾à¤¨ à¤•à¥‡ à¤—à¤¹à¤¨ à¤µà¤¿à¤¶à¥à¤²à¥à¤·à¤£ à¤•à¤¾ à¤…à¤¨à¥à¤®à¤¾à¤¨ à¤•à¤°à¤¤à¤¾ à¤•à¥‡ à¤µà¤¿à¤¶à¥à¤²à¥à¤·à¤£ à¤•à¤¾ à¤…à¤¨à¥à¤®à¤¾à¤¨ à¤•à¤°à¤¤

à¤•à¥‡ à¤¸à¤¿à¤¦à¥à§à¤¾à¤‚à¤¤

à¤µà¤¸à¥à¤¤à¥-à¤‰à¤¨à¥à¤®à¥à¤–à¤ªà¥à¤°à¥‹à¤—à¥à¤°à¤¾à¤®à¤¿à¤‚à¤— à¤•à¥‡ à¤šà¤¾à¤°à¤®à¥à¤–à¤¯à¥à¤à¤¯ à¤¸à¤¿à¤¦à¥à§à¤¾à¤‚à¤¤ à¤¹à¥ˆà¤‚: à¤…à¤¿à¤•à¤²à¥à¤ª (Encapsulation), à¤µà¤¿à¤°à¤¾à¤¸à¤¤ (Inheritance), à¤¬à¤¹à¥à¤°à¥‚à¤ª à¤¤à¤¾ (Polymorphism), à¤”à¤° à¤¸à¤‚à¤¯à¥‹à¤œà¤¨ (Composition)à¥¤ à¤‡à¤¨ à¤¸à¤¿à¤¦à¥à§à¤¾à¤‚à¤¤à¥‹à¤‚ à¤•à¥‹ à¤¸à¤®à¤à¤¾ à¤µà¤¸à¥à¤¤à¥-à¤‰à¤¨à¥à¤®à¥à¤–à¤ªà¥à¤°à¥‹à¤—à¥à¤°à¤¾à¤®à¤¿à¤‚à¤— à¤•à¥‹ à¤¸à¤®à¤à¤¨à¥‡ à¤•à¥‡ à¤²à¤¿à¤ à¤‡à¤¸à¤•à¤¾ à¤•à¥à¤¯à¤¾ à¤…à¤°à¥à¤¥ à¤¹à¥ˆ à¤†à¤µà¤¶à¥à¤¯à¤• à¤¤à¤¥à¤¾ à¤‰à¤¨à¤•à¤¾ à¤•à¥à¤¯à¤¾ à¤®à¤¹à¤¤à¥à¤µ à¤¹à¥ˆà¥¤

à¤…à¤à¤¿à¤•à¤²à¥à¤ª (Encapsulation)

à¤…à¤à¤¿à¤•à¤²à¥à¤ª à¤•à¤¾ à¤®à¤¤à¤²à¤¬ à¤¹à¥ˆ à¤¡à¥‡à¤Ÿà¤¾ à¤•à¥‹ à¤¸à¤®à¤°à¤•à¥à¤·à¤¿à¤¤ à¤°à¤–à¤¨à¤¾ à¤”à¤° à¤•à¥‡à¤µà¤² à¤†à¤µà¤¶à¥à¤¯à¤• à¤¤à¤¥à¤¾ à¤‰à¤¨à¤•à¤¾ à¤¤à¤°à¥€à¤•à¥‹, à¤•à¥‡ à¤®à¤¾à¤§à¥à¤¯à¤® à¤¸à¥‡ à¤‰à¤¨à¤¸à¥‡ à¤›à¥‡à¥¤ à¤ªà¤¹à¤²à¤¾ à¤•à¤¦à¤® à¤…à¤°à¥à¤¥à¤¾à¤¤ à¤›à¤¿à¤ªà¤¾à¤à¤¾ à¤”à¤° à¤•à¥‡à¤µà¤² à¤†à¤µà¤¶à¥à¤¯à¤• à¤¤à¤¥à¤¾ à¤‰à¤¨à¤•à¤¾ à¤•à¥‹ à¤‰à¤¿à¤¤ à¤°à¥‚à¤ª à¤®à¥‡à¤‚ à¤°à¤–à¤¨à¤¾ à¤…

à¤µà¤¿à¤°à¥¾à¤¸à¤¤ (Inheritance)

à¤µà¤¿à¤°à¥¾à¤¸à¤¤ à¤•à¥¾ à¤®à¤¤à¤²à¤¬ à¤¹à¥ˆ à¤à¤• à¤µà¤¸à¥à¤¤à¥ à¤¸à¥‡ à¤¦à¥‚à¤°à¥€ à¤µà¤¸à¥à¤¤à¥ à¤®à¥‡à¤‚, à¤—à¥à¤£à¥‹à¤‚, à¤•à¥¾ à¤¸à¥à¤¤à¥¾à¤¨à¥¾à¤‚,à¤¤à¤°à¤£à¥¤ à¤¯à¤¹ à¤¨à¤ à¤µà¤¸à¥à¤¤à¥à“à¤, à¤•à¥‹ à¤ªà¤¹à¤²à¥‡ à¤¸à¥‡ à¤®à¥Œà¤œà¥‚à¤¦ à¤µà¤¸à¥à¤¤à¥à“à¤, à¤•à¥‡ à¤—à¥à¤£à¥‹à¤‚, à¤•à¥¾ à¤‰à¤ªà¤¯à¥‹à¤— à¤•à¤°à¤•à¥‡ à¤¬à¤¨à¤¨à¥¾à¤¨à¥¾ à¤¸à¤,à¤-à¤µ à¤¬à¤¨à¥¾à¤¤à¤¾ à¤¹à¥ˆà¥¤ à¤µà¤¿à¤°à¥¾à¤¸à¤¸à¤¤ à¤•à¥¾ à¤‰à¤¦à¤¾à¤¹à¥‡à¤¤à¥ à¤•à¥‹à¤‚ à¤•à¥‹ à¤ªà¥à¤°à¤¾à¤¨à¥¨à¤¨à¥ à¤•à¥‡ à¤®à¤¤à¤²à¤¬ à¤®à¥‡à¤‚ à¤•à¥‡à¤µà¤² à¤®à¤¾à¤¤à¥à¤°à¤¾ à¤•à¥‹ à¤‰à¤¦à¤¾à¤¹à¥‡à¤¤à¥ à¤®à¥‡à¤‚

à¤…à¤¨à¥à¤•à¥,à¤²à¤¨à¤¶à¥€à¤²à¤¤à¤¾ à¤ªà¥à¤°à¤¦à¤¾à¤¨ à¤•à¤°à¤¨à¤¾ à¤¹à¥ˆà¥¤ à¤‰à¤¾à¤¹à¤°à¤£ à¤•à¥‡ à¤²à¤¿à¤,à¤à¤• 'à¤ªà¥à¤°à¤¿à¤,à¤Ÿ' à¤µà¤¿à¤§à¤¿ à¤•à¥‹ à¤µà¤¿à¤-à¤¿à¤¨à¥à¤¨ à¤ªà¥à¤°à¤•à¤¾à¤° à¤•à¥‡ à¤¡à¥‡à¤Ÿà¤¾ (à¤œà¥ˆà¤¸à¥‡, à¤¸à¤,à¤–à¥à¤¯à¤¾, à¤ªà¤¾à¤ , à¤†à¤¦à¤¿) à¤•à¥‡ à¤²à¤¿à¤ à¤…à¤²à¤—-à¤…à¤²à¤— à¤¤à¤°à¥€à¤•à¥‡ à¤¸à¥‡ à¤‰à¤ªà¤¯à¥‹à¤— à¤•à¤¿à¤¯à¤¾ à¤œà¤¾à¤•à¤¤à¤¾ à¤¸à¥‡ à¤²à¥ˆà¥¤

à¤¸à¤,à¤¯à¥‹à¤œà¤¨ (Composition)

à¤¸à¤,à¤¯à¥‹à¤œà¤¨ à¤•à¤¾ à¤®à¤¤à¤²à¤¬ à¤¹à¥ˆ à¤µà¤¿à¤-à¤¿à¤¨à¥à¤¨ à¤µà¤¸à¥à¤à¥à¤“à¤, à¤•à¥‹ à¤®à¤¿à¤²à¤¾à¤•à¤° à¤à¤• à¤¨à¤¯à¤¾ à¤µà¤¸à¥à¤à¥à¤¤à¥ à¤¬à¤¨à¤¾à¤¤à¤¾ à¤¯à¤¹ à¤µà¤¸à¥à¤à¥à¤“à¤, à¤•à¥‡ à¤¬à¥€à¤š à¤•à¥‡ à¤¸à¤¬à¤§à¥‹à¤‚ à¤•à¤°à¤¨à¤¾ à¤•à¤¾à¤¯à¤¾ à¤”à¤° à¤‰à¤¨à¥à¤¹à¥‡à¤‚ à¤,à¤à¤• à¤¸à¤¾à¤¥ à¤•à¤¾à¤¯à¤¾à¤¨à¥à¤µà¤¿à¤¤ à¤•à¤°à¤¨à¤¾ à¤•à¥‡ à¤…à¤¨à¥à¤®à¤¤à¤¿ à¤¦à¤¿à¤¤à¤¾ à¤¹à¥ˆà¥¤ à¤¸à¤,à¤¯à¥‹à¤œà¤¨ à¤•à¤°à¥‹à¤‚ à¤”à¤° à¤‰à¤¨à¤•à¥‡ à¤•à¤¾à¤°à¤£ à¤•à¥‡ à¤²à¤¿à¤ à¤à¤• à¤¨à¤¯à¤¾ à¤µà¤¸à¥à¤à¥à¤“à¤, à¤•à¥‡ à¤¬à¥€à¤š à¤•à¤¾à¤®à¤¤à¤¾ à¤•à¤¾à¤¯à¤¾à¤¨à¥à¤µà¤¿à¤¤ à¤•à¤°à¤¨à¤¾ à¤•à¥‡ à¤…à¤¨à¥à¤®à¤¤à¤¿ à¤¦à¤¿à¤¤à¤¾ à¤¹à¥ˆà¥¤ à¤¸à¤,à¤¯à¥‹à¤œà¤¨ à¤•à¤°à¥‹à¤‚ à¤”à¤° à¤ªà¤¾à¤¤à¤¾ à¤•à¤¾à¤°à¤£ à¤•à¥‡ à¤²à¤¿à¤,à¤à¤• à¤¸à¤¾à¤¥ à¤•à¤¾à¤®à¤¤à¤¾ à¤•à¤¾à¤¯à¤¾à¤¨à¥à¤µà¤¿à¤¤ à¤•à¤°à¤¨à¤¾ à¤•à¥‡ à¤…à¤¨à¥à¤®à¤¤à¤¿ à¤¦à¤¿à¤¤à¤¾ à¤¹à¥ˆà¥¤ à¤¸à¤,à¤¯à¥‹à¤œà¤¨ à¤•à¤°à¥‹à¤‚ à¤”à¤° à¤…à¤¨à¥à¤®à¤¤à¤¿ à¤•à¤°à¤¨à¤¾ à¤•à¥‡ à¤…à¤¨à¥à¤®à¤¤à¤¿ à¤•à¤¾à¤®à¤¤à¤¾ à¤•à¤¾à¤¯à¤¾à¤¨à¥à¤µà¤¿à¤¤

à¤«à¤¾à¤¯à¤¦à¥‡ à¤¹à¥ˆà¤,, à¤œà¤¿à¤¨à¥‹à¤®à¥‡à¤, à¤¸à¥‡ à¤•à¥à¤› à¤¨à¤¿à¤®à¥à¤¨à¤²à¤¿à¤–à¤¿à¤¤ à¤¹à¥ˆà¤,:

1. à¤•à¥‹à¤¡ à¤•à¥‹ à¤…à¤§à¤¿à¤• à¤¸à¤,à¤—à¤ à¤¿à¤¤ à¤”à¤° à¤ªà¤¢à¤¼à¤¨à¥‡ à¤¯à¥‹à¤—à¥à¤¯ à¤¬à¤¨à¤¾à¤¤à¤¾ à¤¹à¥ˆà¥¤
2. à¤•à¥‹à¤¡ à¤•à¥‹ à¤ªà¥à¤¨à¤ƒ à¤‰à¤ªà¤¯à¥‹à¤— à¤•à¤°à¤¨à¥‡ à¤®à¥‡à¤, à¤†à¤¸à¤¾à¤¨ à¤¬à¤¨à¤¾à¤¤à¤¾ à¤¹à¥ˆà¥¤
3. à¤•à¥‹à¤¡ à¤•à¥‹ à¤¬à¤¨à¤¾à¤ à¤°à¤–à¤¨à¤¾ à¤”à¤° à¤…à¤ªà¤¡à¥‡à¤Ÿ à¤•à¤°à¤¨à¤¾ à¤†à¤¸à¤¾à¤¨ à¤¬à¤¨à¤¾à¤¤à¤¾ à¤¹à¥ˆà¥¤
4. à¤•à¥‹à¤¡ à¤•à¥‹ à¤…à¤§à¤¿à¤• à¤¸à¥ à¤°à¤•à¥à¤·à¤¿à¤¤ à¤”à¤° à¤µà¤¿à¤¶à¥à¤µà¤¸à¤¨à¥€à¤¯ à¤¬à¤¨à¤¾à¤¤à¤¾ à¤¹à¥ˆà¥¤

à¤µà¤¸à¥à¤¤à¥-à¤‰à¤¨à¥à¤®à¥à¤-à¤ªà¥à¤°à¥‹à¤—à¥à¤°à¤¾à¤®à¤¿à¤à¤¬à¤¨à¤¾à¤¨à¤¾ à¤•à¤¿ à¤‰à¤¦à¤¾à¤¹à¤°à¤£

à¤µà¤¸à¥à¤¤à¥-à¤‰à¤¨à¥à¤®à¥à¤- à¤ªà¥à¤°à¥‹à¤—à¥à¤°à¤¾à¤®à¤¿à¤à¤¬à¤¨à¤¾à¤¨à¤¾ à¤•à¤¿ à¤ à¤¦à¤¾à¤¹à¤°à¤£à¥‹à¤‚, à¤•à¥‹ à¤¸à¤®à¤à¤¾à¤¨à¥‡ à¤•à¥‡ à¤²à¤¿à¤, à¤ à¤¦à¤¾à¤¹à¤°à¤£ à¤²à¥‡à¤‡ à¤¸à¤•à¤¤à¥‡ à¤•à¤¿ à¤ à¤• 'à¤µà¤¸à¤¤à¥à¤à¤¾à¤à¤¤à¥€' à¤µà¤°à¥à¤— à¤¬à¤¨à¤¾à¤¨à¤¾ à¤šà¤¾à¤¹à¤¤à¥‡ à¤¹à¥ˆà¤,à¥¤ à¤‡à¤¸ à¤µà¤°à¥à¤— à¤®à¥‡à¤, à¤µà¤¸à¤¤à¥à¤à¤¾à¤à¤¤à¥€ à¤•à¥‡ à¤¨à¤¾à¤®, à¤‰à¤®à¥à¤°, à¤”à¤° à¤—à¥à¤°à¥‡à¤¡ à¤œà¥ˆà¤¸à¥‡ à¤—à¥à¤£ à¤¹à¥‹ à¤¸à¤•à¤¤à¥‡ à¤¹à¥ˆà¤,à¥¤ à¤‡à¤¸à¤¸à¥‡ à¤…à¤²à¤—à¥‡ à¤…à¤²à¤—à¥‡ à¤®à¤¾à¤, à¤‡à¤¸à¤¸à¥‡ à¤…à¤²à¤—à¥‡ à¤®à¥‡à¤, à¤ªà¤¢à¤¼à¤¨à¥‡ à¤•à¥‡ à¤²à¤¿à¤, à¤”à¤° à¤¸à¤®à¤à¤¨à¥‡ à¤œà¥ˆà¤¸à¥‡ à¤•à¤¿à¤¤à¤¨à¥‡ à¤¹à¥‹ à¤¸à¤•à¤¤à¥‡ à¤¹à¥ˆà¤,à¥¤

à¤‡à¤¸ à¤ªà¥à¤°à¤•à¤¾à¤°, à¤µà¤¸à¥à¤¤à¥-à¤‰à¤¨à¥à¤®à¥à¤-à¤ªà¥à¤°à¥‹à¤—à¥à¤°à¤¾à¤®à¤¿à¤à¤¬à¤¨à¤¾à¤¨à¤¾ à¤•à¥‹ à¤®à¤¸à¥à¤¤à¥à¤¾

à¤”à¤° à¤‰à¤ªà¤¯à¥‹à¤— à¤•à¤°à¤¨à¤¾
à¤ªà¥à¤°à¥‹à¤—à¥à¤°à¤¾à¤®à¤¿à¤‚à¤— à¤•à¥‹ à¤…à¤§à¤¿à¤•
à¤¸à¤°à¤² à¤”à¤° à¤ªà¥à¤°à¤à¤¾à¤µà¥€ à¤¬à¤¨à¤¾à¤¤à¤à¤¾ à¤¹à¥ˆà¥¤
à¤¯à¤¹ à¤µà¤¿à¤§à¤¿ à¤µà¤¾à¤¸à¤¿à¤• à¤¦à¥à¤¨à¤¿à¤• à¤•à¥‡ à¤µà¤¸à¥à¤“à¤, à¤”à¤° à¤‰à¤¨à¤•à¥‡ à¤¬à¥€à¤š
à¤•à¥‡ à¤¸à¤¬à¤¨à¤§à¥‹à¤, à¤ªà¤° à¤†à¤§à¤¾à¤°à¤¿à¤¤ à¤¹à¥ˆ,
à¤œà¤¿à¤¸à¤¸à¥‡ à¤ªà¥à¤°à¥‹à¤—à¥à¤°à¤¾à¤®à¤¿à¤‚à¤— à¤•à¥‹
à¤…à¤§à¤¿à¤• à¤¸à¤à¤— à¤¿à¤¤ à¤”à¤° à¤ªà¤¢à¤¼à¤¨à¥‡
à¤¯à¥‹à¤—à¥à¤¯ à¤¬à¤¨à¤¾à¤¤à¤à¤¾ à¤¹à¥ˆà¥¤

The way people search for knowledge has changed significantly over the past decade. Access to information is no longer limited by physical shelves, store availability, or opening hours. Today, being able to download ***Object Oriented Programming Concepts In Hindi*** has become an important part of how individuals learn, research, and develop new perspectives.

For many readers, the journey begins with a specific need. It might be an academic assignment, a professional challenge, or a personal interest that requires deeper understanding. Instead of waiting or relying on fragmented sources, having direct access to a complete book provides structure and clarity from the start.

Speed plays an important role. When information is needed, delays can disrupt focus and motivation. Downloadable PDF books allow readers to move forward immediately. This instant access supports productive learning habits and keeps curiosity alive.

Flexibility is another major advantage. ***Object Oriented Programming Concepts In Hindi*** can be opened across different devices, allowing readers to continue where they left off without being tied to one location. Whether reading at a desk, during travel, or in short breaks between activities, learning adapts naturally to daily routines.

Consistency of layout adds to comfort and comprehension. PDF files preserve original formatting, page structure, charts, and images. This reliability is especially helpful for educational and reference materials where visual organization supports understanding.

Interaction with the text enhances retention. Highlighting important passages, adding notes, and creating bookmarks allow readers to engage actively rather than passively consuming information. Over time, these interactions transform the book into a personalized resource.

Search functionality adds long-term value. Instead of rereading entire chapters, readers can quickly locate relevant terms or sections. This makes ***Object Oriented Programming Concepts In Hindi*** useful not only during initial reading but also as an ongoing reference.

Trust in the source matters. Reputable platforms that provide legal access ensure content accuracy and user safety. Readers can focus fully on learning without concerns about file integrity or copyright issues.

Affordability expands opportunity. When quality books are accessible without high costs, exploration becomes more inclusive. Students, independent learners, and professionals gain access to materials that might otherwise be out of reach.

Academic use remains one of the strongest reasons people seek downloadable books. Students benefit from offline access, organized study materials, and the ability to revisit complex topics repeatedly. This supports deeper understanding rather than surface-level memorization.

For educators and researchers, ***Object Oriented Programming Concepts In Hindi*** provides a reliable foundation for analysis and comparison. Being able to reference material quickly improves efficiency and accuracy in academic work.

Professional readers often approach books differently. They look for clarity, relevance, and practical insight. Having the book readily available allows them to consult specific sections when challenges arise, making learning directly applicable.

Independent learners value autonomy. Without fixed schedules or external pressure, progress happens naturally. Downloadable books support this self-directed approach by remaining accessible whenever interest returns.

Accessibility features contribute to broader inclusion. Adjustable text sizes, compatibility with screen readers, and flexible viewing options allow more people to engage comfortably with the content.

Organization simplifies long-term use. Files can be categorized, backed up, and stored securely. Even after extended periods, returning to ***Object Oriented Programming Concepts In Hindi*** feels familiar rather than overwhelming.

Environmental considerations also influence reading choices. Reduced reliance on printed materials helps limit paper consumption and transportation demands, supporting more sustainable learning practices.

Global access strengthens shared knowledge. Readers from different regions can engage with the same material, fostering diverse perspectives and collective understanding.

Revisiting familiar sections often reveals new meaning. As experience grows, ideas once overlooked become relevant. This layered engagement is a sign of meaningful learning.

Rather than being consumed once and forgotten, ***Object Oriented Programming Concepts In Hindi*** remains available as a steady reference. Its value increases through repeated use rather than diminishing

over time.

Learning, in this context, becomes continuous. There is no pressure to finish quickly. Progress unfolds through reflection, application, and return.

The relationship between reader and content evolves gradually. What starts as a simple download grows into a dependable resource that supports thinking, decision-making, and growth.

In everyday life, this kind of access encourages a calmer approach to knowledge. Information is no longer something to chase urgently but something that is readily available when needed.

With ***Object Oriented Programming Concepts In Hindi*** within reach, learning becomes part of routine rather than an interruption. It blends into moments of focus, curiosity, and quiet reflection.

This accessibility reshapes habits. Reading becomes less about obligation and more about engagement. The book waits patiently, offering insight whenever attention turns back to it.

Over time, the presence of a reliable resource supports confidence. Questions feel less intimidating when answers are close at hand.

Ultimately, the value of downloading ***Object Oriented Programming Concepts In Hindi*** lies not only in convenience but in continuity. Knowledge remains present, adaptable, and ready to support growth whenever the reader chooses to return.

Questions & Answers About object

oriented programming concepts in hindi

No	Question	Answer
1	à¤'à¤¬à¥[à¤œà¥‡à¤•à¥[à¤Ÿ à¤"à¤°à¤¿à¤[à¤,à¤Ÿà¥‡à¤¡ à¤ªà¥[à¤°à¥‹à¤—à¥[à¤°à¤¾à¤®à¤ à¤¿à¤,à¤— à¤•à¥[à¤¯à¤¾à¤¾ à¤¹à¥ˆ?	à¤'à¤¬à¥[à¤œà¥‡à¤•à¥[à¤Ÿ à¤"à¤°à¤¿à¤[à¤,à¤Ÿà¥‡à¤¡ à¤ªà¥[à¤°à¥‹à¤—à¥[à¤°à¤¾à¤®à¤ à¤¿à¤,à¤— à¤ªà¥[à¤°à¥‹à¤—à¥[à¤°à¤¾à¤®à¤ à¤¿à¤,à¤— à¤ªà¥ˆà¥‡à¤¡à¤¡à¤¾à¤® à¤¹à¥ˆ à¤œà¥‹ à¤¡à¥‡à¤Ÿà¤¾ à¤"à¤° à¤‰à¤¸à¥ à¤®à¥‡à¤‡à¤¾à¤¡à¥[à¤, à¤•à¥‹ à¤[à¤•à¤¯à¤¾à¤¾ à¤®à¥‡à¤‡à¤¾à¤, à¤¬à¤¾à¤¾à¤,à¤§à¤¤à¤¾ à¤¹à¥ˆ à¤œà¤¿à¤‚à¤¿à¥‡ à¤'à¤¬à¥[à¤œà¥‡à¤•à¥[à¤Ÿ à¤•à¤¹à¤¾ à¤œà¤¾à¤¤à¤¾ à¤¹à¥ˆà¥¤
2	OOP à¤•à¥‡ à¤®à¥[à¤-à¥[à¤¯ à¤šà¤¾à¤° à¤,à¤¿à¤¦à¥[à¤§à¤¾à¤,à¤¤ à¤•à¥[à¤¯à¤¾ à¤¹à¥ˆà¤,?	OOP à¤•à¥‡ à¤®à¥[à¤-à¥[à¤¯ à¤šà¤¾à¤° à¤,à¤¿à¤¦à¥[à¤§à¤¾à¤,à¤¤ à¤¹à¥ˆà¤,: à¤‡à¤¨à¤•à¥ˆà¤ªà¥[à¤, à¥[à¤²à¥‡à¤¶à¤¨, à¤‡à¤¨à¤¹à¥à¤¿à¤à¤¿à¤¯à¥‡à¤à¤¨, à¤ªà¥[à¤°à¤¾à¤®à¤®à¥[à¤•à¤¾à¤®à¤ à¤"à¤° à¤[à¤¬à¥[à¤¬à¤¾à¤¾à¤®à¤ à¤¹à¥ˆà¥¤
3	à¤•à¥[à¤²à¤¾à¤¸ à¤"à¤° à¤'à¤¬à¥[à¤œà¥‡à¤•à¥[à¤Ÿ à¤®à¥‡à¤‡à¤, à¤•à¥[à¤¯à¤¾ à¤…à¤,à¤¤à¤° à¤¹à¥ˆ?	à¤•à¥[à¤²à¤¾à¤¸ à¤¬à¥[à¤²à¥‡,à¤ªà¥[à¤°à¤¿à¤,à¤Ÿ à¤¯à¤¾ à¤Ÿà¥‡à¤®à¥[à¤ªà¤²à¥‡à¤Ÿ à¤¹à¥‹à¤¾à¤¾ à¤®à¥[à¤ªà¤²à¥‡à¤Ÿ à¤œà¤¬à¤ à¤¬à¥[à¤²à¥‡à¤¡à¤¾à¤¸ à¤¬à¥[à¤²à¥‡à¤¡à¤¾à¤¸ à¤•à¥[à¤¯à¤¾ à¤‰à¤¸à¤¦à¤¾à¤¹à¤°à¤£ à¤¹à¥‹à¤¾à¤¾à¤°à¤£ à¤¹à¥ˆà¥¤
4	à¤‡à¤¨à¤•à¥ˆà¤ªà¥[à¤¸à¥[à¤²à¥‡à¤¡à¤ ¶à¤¨ à¤•à¤¾ à¤•à¥[à¤¯à¤¾ à¤®à¤¾à¤¤à¤¾à¤µ à¤¹à¥ˆ?	à¤‡à¤¨à¤•à¥ˆà¤ªà¥[à¤¸à¥[à¤²à¥‡à¤¡à¤ ¶à¤¨ à¤¸à¥‡ à¤¡à¥‡à¤Ÿà¤¾ à¤"à¤° à¤®à¥‡à¤¤à¤¥à¤¡à¥[à¤, à¤•à¥‹ à¤•à¤¾à¤¾à¤µà¥‡à¤Ÿà¤¾à¤Ÿ à¤°à¤-à¤¾à¤¾ à¤œà¤¾à¤¤à¤¾à¤µà¥‡à¤Ÿà¤¾à¤Ÿ à¤¹à¥ˆà¥¤ à¤¡à¥‡à¤Ÿà¤¾à¤¾ à¤•à¤¾à¤¾ à¤•à¥‹ à¤…à¤¨à¥à¤¿à¤¾à¤¾à¤°à¤£ à¤¹à¥‹à¤¾à¤¾à¤°à¤£ à¤¹à¥ˆà¥¤
5	OOP à¤®à¥‡à¤, à¤ªà¥‰à¤²à¤¿à¤®à¥‰à¤°à¥[à¤«à¤¤à¤ à¤•à¥[à¤®à¥ à¤•à¥‹ à¤¹à¥ˆà¥¤	à¤ªà¥‰à¤²à¤¿à¤®à¥‰à¤°à¥[à¤«à¤¤à¤ à¤[à¤•à¥ à¤‡à¤,à¤Ÿà¤°à¤«à¥‡à¤Ÿà¤¾à¤Ÿà¤¾ à¤•à¤¾à¤¾à¤¹à¤¾à¤¾à¤¾à¤¾ à¤¹à¥ˆà¥¤ à¤®à¥‡à¤‡à¤¾à¤¾à¤¾à¤¾

8	OOP à¤•à¤¾à¤¸à¥‰à¤µà¥‡à¤¯à¤°à¤° à¤µà¤¿à¤·à¤¯à¤‹à¤µà¤¸à¥‚à¤¤à¤¾à¤¨à¤¿à¤•à¤¤à¤¾ à¤®à¥‡à¤‚ à¤•à¤¾à¤¨à¥‚à¤¨ à¤¹à¥ˆ?	OOP à¤¸à¥‰à¤«à¥Ÿà¤µà¥‡à¤¯à¤° à¤µà¤¿à¤•à¤¾à¤¸ à¤•à¥‹ à¤®à¥‡à¤‚ à¤¸à¤°à¤², à¤ª à¤¹à¤¾à¤¨: à¤‰à¤ªà¤¯à¥‹à¤—à¥€ à¤”à¤° à¤®à¥‡à¤¤à¤¾à¤¨à¥Ÿà¥‡à¤¤à¤¾à¤¨ à¤¹à¥‡à¤¤à¤¾ à¤†à¤¸à¤¾à¤¨ à¤¬à¤¨à¤¾à¤¾à¤¤à¤¾ à¤¹à¥ˆ, à¤œà¤¿à¤¸à¤¾à¤¨ à¤•à¤¾à¤¸à¤¤à¤¾ à¤ª à¤¹à¤¾à¤¨ à¤•à¥‡ à¤µà¤¿à¤•à¤¾à¤¸ à¤®à¥‡à¤‚ à¤®à¤¦à¤¦ à¤•à¤°à¤¤à¥‡ à¤¹à¥ˆà¤‚ à¤”à¤° à¤…à¤§à¤¿à¤• à¤¸à¤®à¤¯ à¤¬à¤à¤¾à¤¨à¥‡ à¤®à¥‡à¤‚ à¤¸à¤®à¤°à¥à¤¥ à¤¹à¥ˆà¤‚à¥¤
9	à¤µà¤¸à¥‚à¤¤à¤¾à¤¨-à¤‰à¤¨à¥‚à¤®à¤¾à¤– à¤ª à¤¹à¤¾à¤°à¥‹à¤—à¥‚à¤°à¤¾à¤®à¤¾à¤® à¤¿à¤¸à¤¾à¤— à¤•à¥‡ à¤µà¤¿à¤·à¤¯ à¤®à¥‡à¤‚ à¤¸à¤¿à¤¦à¥à¤§à¤¾à¤¤à¤¾à¤¤ à¤¤à¥‡à¤¤à¤¾à¤¨ à¤•à¥‡ à¤”à¤°à¤¤à¤¾à¤¨ à¤•à¥‡ à¤…à¤§à¤¿à¤•à¤¾à¤¤à¤¾ à¤¹à¥ˆà¤‚à¥¤	à¤µà¤¸à¥‚à¤¤à¤¾à¤¨-à¤‰à¤¨à¥‚à¤®à¤¾à¤– à¤ª à¤¹à¤¾à¤°à¥‹à¤—à¥‚à¤°à¤¾à¤®à¤¾à¤® à¤¿à¤¸à¤¾à¤— à¤•à¥‡ à¤µà¤¿à¤·à¤¯à¤‹à¤µà¤¸à¥‚à¤¤à¤¾à¤¨ à¤¹à¥ˆà¤‚ à¤”à¤° à¤…à¤§à¤¿à¤•à¤¾à¤¤à¤¾à¤¨ à¤•à¥‡ à¤µà¤¿à¤·à¤¯à¤‹à¤µà¤¸à¥‚à¤¤à¤¾à¤¨ à¤¹à¥ˆà¤‚ à¤”à¤° à¤…à¤§à¤¿à¤•à¤¾à¤¤à¤¾à¤¨ à¤•à¥‡ à¤µà¤¿à¤·à¤¯à¤‹à¤µà¤¸à¥‚à¤¤à¤¾à¤¨ à¤¹à¥ˆà¤‚à¥¤: à¤…à¤¤à¤¿à¤°à¤¿à¤•à¥à¤¤ à¤¬à¤¹à¥ˆà¤¤à¤¾ à¤¹à¥ˆà¤‚ (Encapsulation), à¤µà¤¿à¤°à¤¾à¤¸à¤¤à¤¾ (Inheritance), à¤¬à¤¹à¥à¤°à¥‚à¤ª à¤®à¤¤à¤¾ (Polymorphism), à¤”à¤° à¤¸à¤®à¤¿à¤¶à¥à¤°à¤£ (Composition)à¥¤
10	à¤…à¤¸à¤¿à¤•à¥à¤ª à¤•à¤¾ (Encapsulation) à¤•à¤¾ à¤®à¤¤à¤²à¤¬ à¤•à¥‡ à¤¸à¤¾ à¤¹à¥ˆà¥¤?	à¤…à¤¸à¤¿à¤•à¥à¤ª à¤•à¤¾ à¤®à¤¤à¤²à¤¬ à¤¹à¥ˆà¤¤à¤¾ à¤¹à¥‡à¤‚ à¤¡à¥‡à¤Ÿà¤¾ à¤•à¥‡à¤‚ à¤¸à¤¾à¤¥ à¤¬à¤¾à¤¹à¤°à¥€ à¤¹à¤¸à¥à¤¤à¤•à¥‡à¤ª à¤¸à¥‡ à¤¬à¤à¤¦à¥‡ à¤•à¤¾à¤¨à¥‚à¤¨à¥€ à¤¤à¤°à¥€à¤•à¥‡ à¤•à¥‡ à¤¸à¤¾à¤¥ à¤¬à¤¾à¤¤à¤à¤¤à¥à¤°à¤¤à¤¾ à¤¬à¤¨à¤¾à¤¯à¤¾ à¤¸à¤•à¤¤à¤¾ à¤¹à¥ˆà¥¤
11	à¤µà¤¿à¤°à¤¾à¤¸à¤¤à¤¾ (Inheritance) à¤•à¤¾ à¤®à¤¤à¤²à¤¬ à¤•à¥‡ à¤µà¤¿à¤°à¤¾à¤¸à¤¤à¤¾ à¤¹à¥ˆ?	à¤µà¤¿à¤°à¤¾à¤¸à¤¤à¤¾ à¤¹à¥‡ à¤¹à¤¾à¤¥ à¤®à¤¤à¤²à¤¬ à¤¹à¥ˆà¤‚ à¤¡à¥‡à¤Ÿà¤¾ à¤¸à¥‡ à¤¨à¤¯à¤¾ à¤¡à¥‡à¤Ÿà¤¾ à¤¬à¤¨à¤¾à¤¯à¤¾ à¤œà¤¾à¤¤à¤¾ à¤¹à¥ˆà¤‚à¥¤ à¤¯à¤¹ à¤…à¤§à¤¿à¤•à¤¤à¤¾ à¤¸à¥‡ à¤•à¤¾à¤¨à¥‚à¤¨à¥€ à¤¤à¤°à¥€à¤•à¥‡ à¤•à¥‡ à¤¸à¤¾à¤¥ à¤¬à¤¾à¤¤à¤à¤¤à¥à¤°à¤¤à¤¾ à¤•à¥‡ à¤…à¤§à¤¿à¤•à¤¾à¤° à¤•à¥‹ à¤¦à¤°à¥à¤¶à¤¾à¤¤à¤¾ à¤¹à¥ˆà¥¤
12	à¤¬à¤¹à¥à¤°à¥‚à¤ª à¤®à¤¤à¤²à¤¬ à¤•à¤¾ (Polymorphism) à¤•à¤¾ à¤®à¤¤à¤²à¤¬ à¤•à¥‡ à¤µà¤¿à¤à¤¿à¤¨à¥à¤¨ à¤°à¥‚à¤ª à¤¹à¥ˆà¥¤?	à¤¬à¤¹à¥à¤°à¥‚à¤ª à¤®à¤¤à¤²à¤¬ à¤•à¤¾ à¤®à¤¤à¤²à¤¬ à¤•à¥‡ à¤µà¤¿à¤à¤¿à¤¨à¥à¤¨ à¤°à¥‚à¤ª à¤•à¥‡ à¤µà¤¿à¤•à¤¾à¤¸ à¤•à¥‹ à¤¦à¤°à¥à¤¶à¤¾à¤¤à¤¾ à¤¹à¥ˆà¥¤ à¤¯à¤¹ à¤…à¤§à¤¿à¤•à¤¤à¤¾ à¤¸à¥‡ à¤•à¤¾à¤¨à¥‚à¤¨à¥€ à¤¤à¤°à¥€à¤•à¥‡ à¤•à¥‡ à¤¸à¤¾à¤¥ à¤¬à¤¾à¤¤à¤à¤¤à¥à¤°à¤¤à¤¾ à¤¹à¥ˆà¥¤
13	à¤¸à¤®à¤¯à¥‹à¤œà¤¨ (Composition) à¤•à¤¾ à¤®à¤¤à¤²à¤¬ à¤•à¥‡ à¤µà¤¿à¤à¤¿à¤¨à¥à¤¨ à¤•à¥‹à¤‚ à¤¸à¥‡ à¤¨à¤¯à¤¾ à¤¡à¥‡à¤Ÿà¤¾ à¤¬à¤¨à¤¾à¤¯à¤¾ à¤œà¤¾à¤¤à¤¾ à¤¹à¥ˆà¥¤?	à¤¸à¤®à¤¯à¥‹à¤œà¤¨ à¤•à¤¾ à¤®à¤¤à¤²à¤¬ à¤•à¥‡ à¤µà¤¿à¤à¤¿à¤¨à¥à¤¨ à¤•à¥‹à¤‚ à¤¸à¥‡ à¤¨à¤¯à¤¾ à¤¡à¥‡à¤Ÿà¤¾ à¤¬à¤¨à¤¾à¤¯à¤¾ à¤œà¤¾à¤¤à¤¾ à¤¹à¥ˆà¤‚à¥¤ à¤¯à¤¹ à¤…à¤§à¤¿à¤•à¤¤à¤¾ à¤®à¤¹à¤¤à¥à¤µà¤ªà¤¾à¤¤à¤¾ à¤¹à¥ˆà¤‚à¥¤ à¤…à¤¨à¥‡à¤• à¤›à¥‹à¤Ÿà¥‡ à¤‘à¤¬à¥à¤œà¥‡à¤•à¥à¤Ÿà¥à¤¸ à¤•à¥‹ à¤®à¤¿à¤²à¤¾à¤•à¤° à¤¯à¤¹ à¤…à¤§à¤¿à¤•à¤¤à¤¾ à¤¬à¤¨à¤¾à¤¯à¥‡ à¤œà¤¾à¤¤à¥‡ à¤¹à¥ˆà¤‚à¥¤
14	à¤µà¤¸à¥‚à¤¤à¤¾à¤¨-à¤‰à¤¨à¥‚à¤®à¤¾à¤– à¤ª à¤¹à¤¾à¤°à¥‹à¤—à¥‚à¤°à¤¾à¤®à¤¾à¤® à¤¿à¤¸à¤¾à¤— à¤•à¥‡ à¤µà¤¿à¤·à¤¯ à¤®à¥‡à¤‚ à¤•à¤¾à¤¨à¥‚à¤¨ à¤•à¥‡ à¤…à¤¨à¥à¤¸à¤¾à¤° à¤•à¤¾à¤¨à¥‚à¤¨ à¤¹à¥ˆà¥¤?	à¤µà¤¸à¥‚à¤¤à¤¾à¤¨-à¤‰à¤¨à¥‚à¤®à¤¾à¤– à¤ª à¤¹à¤¾à¤°à¥‹à¤—à¥‚à¤°à¤¾à¤®à¤¾à¤® à¤¿à¤¸à¤¾à¤— à¤•à¥‡ à¤µà¤¿à¤·à¤¯à¤‹à¤µà¤¸à¥‚à¤¤à¤¾à¤¨ à¤®à¥‡à¤‚ à¤•à¤¾à¤¨à¥‚à¤¨ à¤•à¥‡ à¤…à¤¨à¥à¤¸à¤¾à¤° à¤•à¤¾à¤¨à¥‚à¤¨ à¤¹à¥ˆà¥¤ à¤…à¤¨à¥à¤¸à¤¾à¤° à¤µà¤¸à¥‚à¤¤à¤¾à¤¨ à¤•à¤¾à¤¨à¥‚à¤¨ à¤•à¥‡ à¤…à¤¨à¥à¤¸à¤¾à¤° à¤µà¤¸à¥‚à¤¤à¤¾à¤¨ à¤®à¥‡à¤‚

16	à¤µà¤¸à¥à¤¤à¥-à¤‰à¤¨à¥à¤®à¥à¤-à¤ªà¥à¤°à¥‹à¤—à¥à¤°à¤¾à¤®à¤¿à¤‚à¤—à¤¾ à¤•à¥‹ à¤¸à¤®à¤à¤¨à¤¾ à¤•à¤ à¤®à¤¿à¤¨à¤ª à¤à¤¨à¤¾à¤¤à¤µà¤¾à¤¦à¥‹à¤‚

à¤ªà¥‰à¤²à¤¿à¤®à¥‰à¤°à¥à¤«à¤¿à¤œà¥à¤®,
à¤ªà¥à¤°à¥‹à¤—à¥à¤°à¤¾à¤®à¤¿à¤,à¤— à¤¸à¤¿à¤¦à¥à¤§à¤¾à¤,à¤¤,
à¤ªà¥à¤°à¥‹à¤—à¥à¤°à¤¾à¤®à¤¿à¤,à¤— à¤¹à¤¿à¤,à¤¦à¥€ à¤®à¥‡à¤,

Object Oriented Programming Concepts In Hindi eBook Resource

Object Oriented Programming Concepts In Hindi eBooks provide structured digital knowledge.

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Digital books help readers maintain productivity.

Practical Use

Object Oriented Programming Concepts In Hindi eBooks support consistent study routines.

Conclusion

Digital reading improves access to information.

Compatibility with devices enhances accessibility.

This environmental benefit aligns with broader digital transformation initiatives.

Structured content improves comprehension and long-term retention.

The digital format of Object Oriented Programming Concepts In Hindi eBooks allows rapid revision, correction, and content expansion.

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Search functionality enhances review and recall.

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Integration with calendars, reminders, and notes enhances learning consistency.

Search functionality enhances review and recall.

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Many readers prefer Object Oriented Programming Concepts In Hindi eBooks due to their flexibility and ability to adapt to individual reading habits. Adjustable fonts, searchable text, and portable access significantly improve comprehension and engagement.

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Consistency reduces cognitive load and enhances focus.

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Logical sequencing reduces confusion.

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Structured chapters help readers follow logical progressions.

By offering structured content, Object Oriented Programming Concepts In Hindi eBooks help learners build foundational knowledge before advancing to more complex topics.

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Extended focus improves comprehension and retention.

Structured content improves comprehension and long-term retention.

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Repeated exposure reinforces knowledge and supports mastery.

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Professionals using Object Oriented Programming Concepts In Hindi eBooks can quickly refresh their knowledge before meetings, presentations, or decision-making processes.

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Repeated exposure reinforces mastery.

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Customization options significantly improve reading comfort. eBooks allow readers to adjust font size, font type, line spacing, background color, and layout. These adjustments reduce eye strain and accommodate individual preferences or visual needs. Night mode, sepia backgrounds, and brightness controls make long reading sessions more comfortable and sustainable.

Digital copies also reduce physical storage requirements. Instead of shelves filled with books, eBooks are stored digitally, freeing up space at home or in the office. This minimal footprint is particularly beneficial for users with limited space or those who prefer a clutter-free environment.

From an environmental perspective, eBooks are eco-friendly. By reducing the need for paper, printing, and physical transportation, digital reading contributes to lower resource consumption. Choosing eBooks like Object Oriented Programming Concepts In Hindi supports sustainable reading habits without sacrificing access to knowledge.

Cost efficiency and accessibility

eBooks are often more affordable than printed editions, and many free or open-access titles are available legally. This accessibility lowers barriers to education and knowledge, enabling more people to benefit from resources like Object Oriented Programming Concepts In Hindi. Digital distribution also allows faster updates and revisions, ensuring access to current information.

Highlighting and Notes

Highlighting and note-taking tools are among the most valuable features of

eBooks. Built-in annotation tools allow readers to interact directly with Object Oriented Programming Concepts In Hindi, turning reading into an active and engaging process. Highlighting important sections helps identify key ideas, definitions, or arguments that require further review.

Digital notes can be added alongside highlighted text, enabling readers to record thoughts, questions, or summaries in context. These annotations remain linked to the original content, making it easier to revisit and understand notes later. Unlike handwritten notes, digital annotations are searchable and editable, enhancing long-term usability.

Many eBook platforms allow users to export notes and highlights. Exported annotations can be used for revision, research, presentations, or collaborative study. This feature is particularly useful for students and professionals who rely on organized summaries and references.

Color-coded highlights add another layer of organization. Different colors can represent themes, importance levels, or types of information. For example, one color may be used for definitions, another for examples, and another for questions. This visual system improves clarity and speeds up review sessions.

Annotations can also evolve over time. As understanding deepens, notes can be edited, expanded, or refined. This flexibility supports iterative learning and continuous improvement, allowing Object Oriented Programming Concepts In Hindi to grow alongside the reader’s knowledge.

Advanced annotation workflows

Power users often combine eBook annotations with external note-taking systems. Linking highlights from Object Oriented Programming Concepts In Hindi to structured notes creates a comprehensive learning framework. This workflow supports deeper analysis, synthesis of ideas, and long-term knowledge retention.

Regular review of highlights and notes reinforces learning. Scheduling periodic review sessions helps transfer information from short-term to long-term memory. Digital tools make these reviews efficient by consolidating all annotations in one place.

Cross-device Sync

Cross-device synchronization is a key advantage of modern eBooks. Cloud services allow readers to access Object Oriented Programming Concepts In Hindi seamlessly across multiple devices, including smartphones, tablets, laptops, and eReaders. This flexibility supports reading anytime and anywhere without losing progress.

When cross-device sync is enabled, reading position, bookmarks, highlights, and notes are automatically updated across all connected devices. A reader can start reading Object Oriented Programming Concepts In Hindi on a phone, continue on a tablet, and finish on a computer without manually tracking progress. This seamless experience enhances convenience and productivity.

Cloud synchronization also provides an added layer of data protection. Notes and annotations stored in the cloud are less likely to be lost due to device failure or accidental deletion. Automatic backups ensure continuity and peace of mind for long-term users.

Cross-device access supports flexible learning environments. Students can study on different devices depending on location or time of day. Professionals can reference Object Oriented Programming Concepts In Hindi during meetings, travel, or remote work without carrying physical materials. This adaptability aligns with modern, mobile lifestyles.

Choosing reliable sync solutions

Selecting reliable cloud services and reading platforms is essential for effective synchronization. Reputable services offer stable performance,

security features, and privacy controls. Keeping applications updated ensures compatibility and smooth syncing across devices.

Users should also manage storage settings carefully. Syncing large libraries may require sufficient cloud storage space. Regularly reviewing stored files and removing unused items helps maintain efficiency without sacrificing access to important materials.

Integrating eBooks into daily workflows

eBooks like Object Oriented Programming Concepts In Hindi integrate easily into daily workflows. Digital calendars, task managers, and note-taking apps can be used alongside reading platforms to schedule study sessions, track progress, and set goals. This integration supports structured learning and consistent reading habits.

Combining eBooks with other digital resources such as videos, lectures, and discussion forums enhances understanding. Cross-referencing Object Oriented Programming Concepts In Hindi with complementary materials creates a rich and interconnected learning environment.

Long-term advantages of eBooks

Over time, the benefits of eBooks extend beyond convenience. Digital libraries are easier to update, organize, and maintain. Annotations and highlights accumulate into a personalized knowledge base that can be revisited and refined. Cross-device access ensures that learning remains continuous and adaptable to changing needs.

eBooks also support lifelong learning. As interests evolve and new goals emerge, readers can quickly acquire and integrate new resources. Object Oriented Programming Concepts In Hindi becomes part of a dynamic system rather than a static book on a shelf.

Final thoughts on the benefits of eBooks like Object Oriented

Programming Concepts In Hindi

eBooks like Object Oriented Programming Concepts In Hindi offer unmatched portability, customization, efficiency, and accessibility. Through searchable text, offline access, advanced highlighting and note-taking, and seamless cross-device synchronization, digital reading transforms how knowledge is consumed and retained. By embracing these features, readers can enhance comfort, improve productivity, and build sustainable learning habits that extend far beyond traditional reading experiences.