

Assignment - 3 - polymorphism



1) Bank Account - withdraw()

- Saving Account \rightarrow checks minimum balance before withdrawing
- Current Account \rightarrow Allows overdraft limit
- Loan Account \rightarrow Records EMI deduction

Polymorphism means same function name behave differently depending on the object or input.

2) Shape - area()

- Circle $\rightarrow \pi r^2$
- Rectangle \rightarrow length \times breadth
- Triangle $\rightarrow \frac{1}{2} \times \text{base} \times \text{height}$

Same function, different formula

3) Employee - calculateSalary()

- Full Time \rightarrow Fixed Monthly Salary
- Part Time \rightarrow Hourly Wage \times hrs
- Intern \rightarrow stipend-based

Polymorphism means same fun name behave differently

4) Payment - Pay()

- Credit Card Payment \rightarrow Card processing
- UPI Payment \rightarrow UPI transaction

Polymorphism means same fun name behave differently

Ans

5) Vehicle - start()

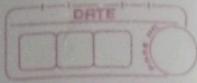
Car, bike & scooter have different use but use a same function

6) Notification - send()

EmailNotification \rightarrow sends mail

SMSNotification \rightarrow sends SMS

PushNotification \rightarrow sends mobile app



7) Animal - makesound()

Dog → barks and sound minimum adds to towardspoint
Cat → Meows finds附近 adds to towardspoint
Cow → Moos neighborsthe nearby & towardspoint

8) Document - open()

PDFDocument → opens in PDF reader

WordDocument → opens in word processor

ImageDocument → opens in image viewer

9) Game - attack()

warrior - sword attack

Archer → Arrow shot

Mage → Magic spell

10) Transport - calculatefare()

Bus → Distance-based fare

Train → Class + Distance fare

Flight → Dynamic pricing

Same message given to generalize for some behaviours but implemented differently.

(Object - attack/)

(Object - calculatefare)