

Programming questions on OOPs Concepts:

1. Create a class hierarchy for different types of animals using inheritance.
2. Implement a polymorphic method that takes an array of objects and prints their names and types.
3. Implement a class representing a bank account using encapsulation to protect sensitive data.
4. Create an abstract class for different types of vehicles, with each subclass implementing its own unique features.
5. Implement an interface for a shape, with different subclasses representing different types of shapes.
6. Create a class representing a person, with private variables for name and age and public methods for accessing and modifying them.
7. Implement an abstract class for different types of employees, with subclasses for different roles like manager and intern.
8. Create a class representing a book, with private variables for title and author and a public method for displaying information about the book.
9. Implement a polymorphic method that takes an array of shapes and calculates their areas.
10. Create a class representing a car, with private variables for make and model and public methods for starting and stopping the engine.
11. Implement an interface for a calculator, with methods for addition, subtraction, multiplication, and division.
12. Create a class hierarchy for different types of food using inheritance, with subclasses for meat, vegetables, and fruit.
13. Implement a polymorphic method that takes an array of employees and calculates their total salary.
14. Create an abstract class for different types of animals, with subclasses for different species like dog and cat.
15. Implement an interface for a printable object, with subclasses for different types of printable documents like PDF and HTML.
16. Create a class representing a computer, with private variables for CPU and RAM and public methods for running programs.
17. Implement an abstract class for different types of vehicles, with subclasses for different modes of transportation like car and bike.
18. Create a class hierarchy for different types of buildings using inheritance, with subclasses for homes, offices, and schools.
19. Implement a polymorphic method that takes an array of shapes and calculates their perimeters.
20. Create an interface for a bank account, with methods for depositing, withdrawing, and checking the balance.

21. Create a class hierarchy for different types of vehicles using inheritance, with each subclass implementing its own unique features such as fuel type and number of wheels.
22. Implement an abstract class for different types of employees, with subclasses for different departments like HR and IT, and private variables for salary and job title.
23. Create an interface for a musical instrument, with methods for playing and tuning, and subclasses for different types of instruments like guitar and piano.
24. Implement a polymorphic method that takes an array of animals and sorts them by their age, using encapsulation to protect the private age variable.