

CS23333-Object Oriented Programming Using Java-2023

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Status	Finished
Started	Saturday, 5 October 2024, 1:23 PM
Completed	Saturday, 5 October 2024, 1:39 PM
Duration	15 mins 28 secs

Question 1

Correct

Marked out of 5.00

Flag question

Create a class Mobile with constructor and a method basicMobile().

Create a subclass CameraMobile which extends Mobile class, with constructor and a method newFeature().

Create a subclass AndroidMobile which extends CameraMobile, with constructor and a method androidMobile().

display the details of the Android Mobile class by creating the instance. .

```
class Mobile{

}

class CameraMobile extends Mobile {

}

class AndroidMobile extends CameraMobile {

}
```

expected output:

Basic Mobile is Manufactured

Camera Mobile is Manufactured

Android Mobile is Manufactured

Camera Mobile with 5MG px

Touch Screen Mobile is Manufactured

For example:

Result
Basic Mobile is Manufactured
Camera Mobile is Manufactured
Android Mobile is Manufactured
Camera Mobile with 5MG px
Touch Screen Mobile is Manufactured

Answer: (penalty regime: 0 %)

```
1 class Mobile {
2     // Constructor for Mobile
3     public Mobile() {
4         System.out.println("Basic Mobile is Manufactured");
5     }
6
7     // Method to display basic mobile details
8     public void basicMobile() {
9         // Optionally include additional functionality here
10    }
11 }
12
13 class CameraMobile extends Mobile {
14     // Constructor for CameraMobile
15     public CameraMobile() {
16         // Calls the constructor of Mobile
17         super();
18         System.out.println("Camera Mobile is Manufactured");
19     }
20
21     // Method for new feature
22     public void newFeature() {
23         System.out.println("Camera Mobile with 5MG px");
24     }
25 }
26
27 class AndroidMobile extends CameraMobile {
28     // Constructor for AndroidMobile
29     public AndroidMobile() {
30         // Calls the constructor of CameraMobile
31         super();
32         System.out.println("Android Mobile is Manufactured");
33     }
34
35     // Method specific to AndroidMobile
36     public void androidMobile() {
37         System.out.println("Touch Screen Mobile is Manufactured");
38     }
39 }
40
41 public class Main {
42     public static void main(String[] args) {
43         // Create an instance of AndroidMobile
44         AndroidMobile androidMobile = new AndroidMobile();
45         androidMobile.newFeature(); // Call the new Feature method
46         androidMobile.androidMobile(); // Call the Android specific method
47     }
48 }
49
```

Expected	Got	
Basic Mobile is Manufactured Camera Mobile is Manufactured Android Mobile is Manufactured Camera Mobile with 5MG px Touch Screen Mobile is Manufactured	Basic Mobile is Manufactured Camera Mobile is Manufactured Android Mobile is Manufactured Camera Mobile with 5MG px Touch Screen Mobile is Manufactured	
Passed all tests!		

Question 2

Correct

Marked out of 5.00

Flag question

create a class called College with attribute String name, constructor to initialize the name attribute , a method called Admitted(). Create a subclass called CSE that extends Student class, with department attribute , Course() method to sub class. Print the details of the Student.

College:

```
String collegeName;

public College() {}

public admitted() {}
```

Student:

```
String studentName;

String department;

public Student(String collegeName, String studentName,String depart) {}

public toString()

Expected Output:
```

A student admitted in REC

CollegeName : REC

StudentName : Venkatesh

Department : CSE

For example:

Result
A student admitted in REC CollegeName : REC StudentName : Venkatesh Department : CSE

Answer: (penalty regime: 0 %)

Reset answer

```
1 class College {
2     protected String collegeName;
3
4     // Constructor to initialize the college name
5     public College(String collegeName) {
6         this.collegeName = collegeName;
7     }
8
9     // Method to print admission message
10    public void admitted() {
11        System.out.println("A student admitted in " + collegeName);
12    }
13 }
14
15 class Student extends College {
16     String studentName;
17     String department;
18
19     // Constructor to initialize student details and call the super constructor
20    public Student(String collegeName, String studentName, String department) {
21        super(collegeName); // Call the College constructor
22        this.studentName = studentName;
23        this.department = department;
24    }
25
26    // toString method to return the details of the student
27    @Override
28    public String toString() {
29        return "CollegeName : " + collegeName + "\n" +
30            "StudentName : " + studentName + "\n" +
31            "Department : " + department;
32    }
33 }
34
35 public class Main {
36     public static void main(String[] args) {
37         Student s1 = new Student("REC", "Venkatesh", "CSE");
38         s1.admitted(); // Invoke the admitted() method
39         System.out.println(s1.toString()); // Print the details of the student
40     }
41 }
42
```

Expected	Got
A student admitted in REC CollegeName : REC StudentName : Venkatesh Department : CSE	A student admitted in REC CollegeName : REC StudentName : Venkatesh Department : CSE

Passed all tests!

Question 3

Correct

Marked out of
5.00

Flag question

Create a class known as "BankAccount" with methods called deposit() and withdraw().

Create a subclass called SavingsAccount that overrides the withdraw() method to prevent withdrawals if the account balance falls below one hundred.

For example:

Result
Create a Bank Account object (A/c No. BA1234) with initial balance of \$500: Deposit \$1000 into account BA1234: New balance after depositing \$1000: \$1500.0 Withdraw \$600 from account BA1234: New balance after withdrawing \$600: \$900.0 Create a SavingsAccount object (A/c No. SA1000) with initial balance of \$300: Try to withdraw \$250 from SA1000! Minimum balance of \$100 required! Balance after trying to withdraw \$250: \$300.0

Answer: (penalty regime: 0 %)

Reset answer

```
1 class BankAccount {
2     // Private field to store the account number
3     private String accountNumber;
4
5     // Private field to store the balance
6     private double balance;
7
8     // Constructor to initialize account number and balance
9     public BankAccount(String accountNumber, double balance) {
10        this.accountNumber = accountNumber;
11        this.balance = balance;
12    }
13
14    // Method to deposit an amount into the account
15    public void deposit(double amount) {
16        balance += amount; // Increase the balance by the deposit amount
17    }
18
19    // Method to withdraw an amount from the account
20    public void withdraw(double amount) {
21        // Check if the balance is sufficient for the withdrawal
22        if (balance >= amount) {
23            balance -= amount; // Decrease the balance by the withdrawal amount
24        } else {
25            // Print a message if the balance is insufficient
26            System.out.println("Insufficient balance");
27        }
28    }
29
30    // Method to get the current balance
31    public double getBalance() {
32        return balance; // Return the current balance
33    }
34
35    // Method to get account number
36    public String getAccountNumber() {
37        return accountNumber; // Return the account number
38    }
39 }
40
41 class SavingsAccount extends BankAccount {
42     // Constructor to initialize account number and balance
43     public SavingsAccount(String accountNumber, double balance) {
44         super(accountNumber, balance); // Call the parent class constructor
45     }
46
47    // Override the withdraw method from the parent class
48    @Override
49    public void withdraw(double amount) {
50        // Check if the withdrawal would cause the balance to drop below $100
51        if (getBalance() - amount < 100) {
52            // Print a message if the minimum balance requirement is not met
```

Expected	Got
Create a Bank Account object (A/c No. BA1234) with initial balance of \$500: Deposit \$1000 into account BA1234: New balance after depositing \$1000: \$1500.0 Withdraw \$600 from account BA1234: New balance after withdrawing \$600: \$900.0 Create a SavingsAccount object (A/c No. SA1000) with initial balance of \$300: Try to withdraw \$250 from SA1000! Minimum balance of \$100 required! Balance after trying to withdraw \$250: \$300.0	Create a Bank Account object (A/c No. BA1234) with initial balance of \$500: Deposit \$1000 into account BA1234: New balance after depositing \$1000: \$1500.0 Withdraw \$600 from account BA1234: New balance after withdrawing \$600: \$900.0 Create a SavingsAccount object (A/c No. SA1000) with initial balance of \$300: Try to withdraw \$250 from SA1000! Minimum balance of \$100 required! Balance after trying to withdraw \$250: \$300.0

Passed all tests!

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