

CS23333-Object Oriented Programming Using Java-2023

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Status	Finished
Started	Monday, 30 September 2024, 9:44 PM
Completed	Monday, 30 September 2024, 10:34 PM
Duration	50 mins 19 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     public Mobile() {  
3         System.out.println("Basic Mobile is Manufactured");  
4     }  
5 }  
6  
7 class CameraMobile extends Mobile {  
8     public CameraMobile() {  
9         System.out.println("Camera Mobile is Manufactured");  
10    }  
11  
12    public void newFeature() {  
13        System.out.println("Camera Mobile with 5MG px");  
14    }  
15 }  
16  
17 class AndroidMobile extends CameraMobile {  
18     public AndroidMobile() {  
19         System.out.println("Android Mobile is Manufactured");  
20     }  
21  
22     public void AndroidMobile() {  
23         System.out.println("Touch Screen Mobile is Manufactured");  
24     }  
25 }  
26  
27 public class Main {  
28     public static void main(String[] args) {  
29         AndroidMobile androidMobile = new AndroidMobile();  
30         androidMobile.newFeature();  
31         androidMobile.AndroidMobile();  
32     }  
33 }  
34
```

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	✓
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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      public College(String collegeName) {
5          // Initialize the instance variable
6          this.collegeName = collegeName;
7      }
8
9      public void admitted() {
10         System.out.println("A student admitted in " + collegeName);
11     }
12 }
13
14 class Student extends College {
15     String studentName;
16     String department;
17
18     public Student(String collegeName, String studentName, String department) {
19         // Initialize the instance variables
20         super(collegeName);
21         this.studentName = studentName;
22         this.department = department;
23     }
24
25     @Override
26     public String toString() {
27         // Return the details of the student
28         return "CollegeName : " + collegeName + "\nStudentName : " + studentName + "\nDepartment : " + department;
29     }
30 }
31
32 public class Main {
33     public static void main(String[] args) {
34         // Create a new Student object
35         Student s1 = new Student("REC", "Venkatesh", "CSE");
36
37         // Invoke the admitted() method
38         s1.admitted();
39
40         // Print the details of the student
41         System.out.println(s1.toString());
42     }
43 }
44

```

	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

Incorrect

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 // Base class for Bank Account
2 class BankAccount {
3     protected String accountNumber;
4     protected double balance;
5
6     // Constructor to initialize account number and initial balance
7     public BankAccount(String accountNumber, double initialBalance) {
8         this.accountNumber = accountNumber;
9         this.balance = initialBalance;
10    }
11
12    // Method to deposit money into the account
13    public void deposit(double amount) {
14        if (amount > 0) {
15            balance += amount;
16            System.out.println("Deposit $" + amount + " into account " + accountNumber + ":");
17            System.out.println("New balance after depositing $" + amount + ": $" + (int)balance); // Ca
18        } else {
19            System.out.println("Deposit amount must be positive!");
20        }
21    }
22
23    // Method to withdraw money from the account
24    public void withdraw(double amount) {
25        if (amount > 0 && amount <= balance) {
26            System.out.println("Withdraw $" + amount + " from account " + accountNumber + ":"); // Prin
27            balance -= amount;
28            System.out.println("New balance after withdrawing $" + amount + ": $" + (int)balance); // C
29        } else {
30            System.out.println("Insufficient balance for withdrawal!");
31        }
32    }
33 }
34
35 // Subclass for Savings Account
36 class SavingsAccount extends BankAccount {
37     private static final double MINIMUM_BALANCE = 100.0;
38
39     // Constructor for SavingsAccount
40     public SavingsAccount(String accountNumber, double initialBalance) {
41         super(accountNumber, initialBalance);
42     }
43
44     // Overridden method to enforce minimum balance
45     @Override
46     public void withdraw(double amount) {
47         System.out.println("Try to withdraw $" + amount + " from SA1000!");
48         if (amount > 0 && (balance - amount) >= MINIMUM_BALANCE) {
49             balance -= amount;
50             System.out.println("New balance after withdrawing $" + amount + ": $" + (int)balance); // C
51         } else {
52

```

	Expected	Got
✓		

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Is Palindrome Number? ➤