

[Dashboard](#) / [My courses](#) / [CS23333-OOPUI-2023](#) / [Lab-05-Inheritance](#) / [Lab-05-Logic Building](#)

<b>Status</b>	Finished
<b>Started</b>	Tuesday, 1 October 2024, 8:20 PM
<b>Completed</b>	Tuesday, 1 October 2024, 9:31 PM
<b>Duration</b>	1 hour 11 mins

## Question 1

Correct

Marked out of 5.00

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 import java.util.*;
2 class Mobile{
3     String a;
4     Mobile(String a){
5         this.a=a;
6     }
7 }
8 void basicMobile(){
9     System.out.println(a+" is Manufactured");
10 }
11 }
12 class CameraMobile extends Mobile{
13     String b;
14     CameraMobile(String a,String b){
15         super(a);
16         this.b=b;
17     }
18 void newFeature(){
19     System.out.println(b+" is Manufactured");
20 }
21 }
22 class AndroidMobile extends CameraMobile{
23     String c;
24     AndroidMobile(String a,String b,String c){
25         super(a,b);
26         this.c=c;
27     }
28 void androidMobile(String d,String e){
29     System.out.println(c+" is Manufactured");
30     System.out.println(d);
31     System.out.println(e);
32 }
33 }
34 }
35 class prog{
36     public static void main(String[] args){
```

```

36     public static void main(String[] args) {
37         AndroidMobile me = new AndroidMobile("Basic Mobile", "Camera Mobile", "Android Mobile");
38         me.basicMobile();
39         me.newFeature();
40         me.androidMobile("Camera Mobile with 5MG px", "Touch Screen Mobile is Manufactured");
41     }
42 }
43 }

```

	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

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     BankAccount(String accountNumber, double balance) {
10         this.accountNumber = accountNumber;
11         this.balance = balance;
12     }
13
14
15
16
17     // Method to deposit an amount into the account
18     public void deposit(double amount) {
19         // Increase the balance by the deposit amount
20         balance += amount;
21     }
22
23
24     // Method to withdraw an amount from the account
25     public void withdraw(double amount) {
26         // Check if the balance is sufficient for the withdrawal
27         if (balance >= amount) {
28             // Decrease the balance by the withdrawal amount
29             balance -= amount;
30         } else {
31             // Print a message if the balance is insufficient
32             System.out.println("Insufficient balance");
33         }
34     }
35
36     // Method to get the current balance
37     public double getBalance() {
38         // Return the current balance
39         return balance;
40     }
41 }
42
43 class SavingsAccount extends BankAccount {
44     // Constructor to initialize account number and balance
45     public SavingsAccount(String accountNumber, double balance) {
46         // Call the parent class constructor
47         super(accountNumber, balance);
48     }
49
50     // Override the withdraw method from the parent class
```

```

51 | //
52 | @Override
   | public void withdraw(double amount) {

```

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

Passed all tests! ✓



Question **3**

Correct

Marked out of 5.00

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  {
3      protected String collegeName;
4
5      public College(String collegeName) {
6          // initialize the instance variables
7          this.collegeName = collegeName;
8      }
9
10     public void admitted() {
11         System.out.println("A student admitted in "+collegeName);
12     }
13 }
14 class Student extends College{
15
16     String studentName;
17     String department;
18
19     public Student(String collegeName, String studentName,String depart) {
20         // initialize the instance varia
21         super(collegeName);
22         this.studentName = studentName;
23         department = depart;
24     }
25 }
26
27 public String toString(){
28     // return the details of the student
29     return("CollegeName : "+collegeName+"\nStudentName : "+ studentName +" \nDepartment : "+ department);
30 }
31 }
32 }
33 class prog {
34     public static void main (String[] args) {
35         Student s1 = new Student("REC","Venkatesh","CSE");

```

```
36 // invoke the admitted() method
37
38 s1.admitted();
39 System.out.println(s1.toString());
40 }
41 }
```

	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! ✓

◀ [Lab-05-MCQ](#)

Jump to...

[Is Palindrome Number? ▶](#)

⚡