<u>Dashboard</u> / <u>My courses</u> / <u>CS23333-OOPUJ-2023</u> / <u>Lab-05-Inheritance</u> / <u>Lab-05-Logic Building</u>

Status	Finished
Started	Monday, 30 September 2024, 5:24 PM
Completed	Monday, 30 September 2024, 6:27 PM
Duration	1 hour 2 mins

```
Question 1
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
```

For example:

```
Result

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

StudentName : Venkatesh Department : CSE

Answer: (penalty regime: 0 %)

```
Reset answer
```

```
1
   class College
2 ▼ {
   protected
               String collegeName;
4
 5
    public College(String collegeName) {
        // initialize the instance variables
6
7
        this.collegeName=collegeName;
8
9
10
11 •
    public void admitted() {
12
        System.out.println("A student admitted in "+collegeName);
13
14
   1}
15 ▼ class Student extends College{
16
17
    String studentName;
18
    String department;
19
20 •
   public Student(String collegeName, String studentName, String depart) {
21
       // initialize the instance variables
22
       super(collegeName);
       this.studentName=studentName;
23
24
       this.department=depart;
25
26
27
28
29
    public String toString(){
30
        // return the details of the student
        return "CollegeName : "+ collegeName + "\nStudentName : "+ studentName + "\nDepartment : "+ department;
31
32
33
34
```

```
public class Main {
    public static void main (String[] args) {
        Student s1 = new Student("REC","Venkatesh","CSE");
        s1.admitted();
        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! 🗸

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```
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 v 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;
8
        // Constructor to initialize account number and balance
        public BankAccount(String accountNumber, double balance)
9
10
11
            this.accountNumber=accountNumber;
12
            this.balance=balance;
13
        }
14
15
16
17
18
        // Method to deposit an amount into the account
19
        public void deposit(double amount) {
20
21
            // Increase the balance by the deposit amount
22
            balance+=amount;
23
24
        }
25
        // Method to withdraw an amount from the account
26
27
        public void withdraw(double amount) {
28
            // Check if the balance is sufficient for the withdrawal
29
            if (balance >= amount) {
                // Decrease the balance by the withdrawal amount
30
                balance -= amount;
31
            } else {
32 -
33
                 // Print a message if the balance is insufficient
                System.out.println("Insufficient balance");
34
35
            }
36
        }
37
        // Method to get the current balance
38
39
        public double getBalance() {
40
            // Return the current balance
41
            return balance;
42
43
44
45
46
     class SavingsAccount extends BankAccount {
        // Constructor to initialize account number and balance
47
48
        public SavingsAccount(String accountNumber, double balance)
49
```

```
// Call the parent class constructor
super(accountNumber,balance);
```

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

Passed all tests! ✓



```
Question 3
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 %)

```
class Mobile
2 ▼ {
3
        public Mobile()
4
            System.out.println("Basic Mobile is Manufactured");
5
6
 7
        public void basicMobile()
8
            System.out.println("Basic Mobile features");
10
11
   class CameraMobile extends Mobile
12
13 ▼ {
        public CameraMobile()
14
15
16
            super();
            System.out.println("Camera Mobile is Manufactured");
17
18
19
        public void newFeature()
20
21
            System.out.println("Camera Mobile with 5MG px");
22
23
   class AndroidMobile extends CameraMobile
24
25
26
        public AndroidMobile()
27
28
            super();
29
            System.out.println("Android Mobile is Manufactured");
30
31
        public void androidMobile()
32
33
            System.out.println("Touch Screen Mobile is Manufactured");
34
```

```
36
   public class main
37
38 ▼ {
        public static void main(String[] args)
39
40
41
            AndroidMobile androidMobile=new AndroidMobile();
42
43
            androidMobile.newFeature();
44
            androidMobile.androidMobile();
45
46
   }
```

	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! <

■ Lab-05-MCQ

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Is Palindrome Number? ►

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