# <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, 7:10 PM
Completed	Monday, 30 September 2024, 8:06 PM
Duration	E6 mins 24 sacs

**Duration** 56 mins 24 secs

```
Question 1
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
        // Private field to store the balance
 5
        private double balance;
 6
        // Constructor to initialize account number and balance
8
9,
         public BankAccount(String accountNumber, double initialBalance) {
            this.accountNumber = accountNumber;
10
11
            this.balance = initialBalance;
12
13
14
15
16
17
        \ensuremath{//} Method to deposit an amount into the account
18
19 •
        public void deposit(double amount) {
20
            // Increase the balance by the deposit amount
21
            balance += amount;
22
        }
23
        // Method to withdraw an amount from the account
24
        public void withdraw(double amount) {
            // Check if the balance is sufficient for the withdrawal
25
            if (balance >= amount) {
26 •
                // Decrease the balance by the withdrawal amount
27
28
                balance -= amount:
29
            } else {
30
                 // Print a message if the balance is insufficient
                System.out.println("Insufficient balance");
31
32
            }
33
        }
34
35
        // Method to get the current balance
36
        public double getBalance() {
            // Return the current balance
37
            return balance;
38
39
        }
40
41
     class SavingsAccount extends BankAccount {
        // Constructor to initialize account number and balance
```

	Expected	Got	
<b>~</b>	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 2
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

```
class College
2 ▼ {
3
    protected String collegeName;
5
    public College(String collegeName) {
        // initialize the instance variables
6
        this.collegeName = collegeName;
7
8
9
10 v public void admitted() {
        System.out.println("A student admitted in "+collegeName);
11
12
13 → public String getCollegeName() {
            return collegeName;
14
15
16
17 🔻
   class Student extends College{
18
19
    private String studentName;
20
   private String department;
21
22 v public Student(String collegeName, String studentName, String depart) {
23
       // initialize the instance variables
24
        super(collegeName); // Call the parent class constructor
25
        this.studentName = studentName;
26
        this.department = depart;
27
28 }
```

	Expected	Got	
<b>~</b>	A student admitted in REC CollegeName : REC StudentName : Venkatesh Department : CSE	A student admitted in REC CollegeName : REC StudentName : Venkatesh Department : CSE	<b>~</b>

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
```

#### 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 %)

Camera Mobile with 5MG px Touch Screen Mobile is Manufactured

```
1 v class Mobile {
2 •
        public Mobile() {
            System.out.println("Basic Mobile is Manufactured");
3
4
 5 ▼
        public void basicMobile() {
6
7
8 ▼ class CameraMobile extends Mobile {
9 •
        public CameraMobile() {
10
            super();
            System.out.println("Camera Mobile is Manufactured");
11
12
        public void newFeature() {
13 •
            System.out.println("Camera Mobile with 5MG px");
14
15
16
17 v class AndroidMobile extends CameraMobile {
        public AndroidMobile() {
18 🔻
19
            // Call the parent constructor
20
            super();
            System.out.println("Android Mobile is Manufactured");
21
22
        public void androidMobile() {
23 •
24
            System.out.println("Touch Screen Mobile is Manufactured");
25
26
27 v public class Main {
28 🕶
        public static void main(String[] args) {
            AndroidMobile androidMobile = new AndroidMobile():
29
```

	Expected	Got	
<b>~</b>	Basic Mobile is Manufactured	Basic Mobile is Manufactured	~
	Camera Mobile is Manufactured	Camera Mobile is Manufactured	
	Android Mobile is Manufactured	Android Mobile is Manufactured	
	Camera Mobile with 5MG px	Camera Mobile with 5MG px	
	Touch Screen Mobile is Manufactured	Touch Screen Mobile is Manufactured	

Passed all tests! 🗸

# **◄** Lab-05-MCQ

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Is Palindrome Number? ►