# <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	Wednesday, 2 October 2024, 12:08 PM
Completed	Wednesday, 2 October 2024, 12:41 PM
ъ .:	22 ' 45

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

51 } 52 }

	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! 🗸

11

```
Question 2
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 v class Mobile{
 2 ,
        public Mobile(){
3
 4
            System.out.println("Basic Mobile is Manufactured");
5
        }
 6
7
    class CameraMobile extends Mobile{
8
9
        public CameraMobile(){
            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
    class AndroidMobile extends CameraMobile{
17
        public AndroidMobile(){
18 ,
            System.out.println("Android Mobile is Manufactured");
19
20
21
        void androidMobile(){
            System.out.println("Touch Screen Mobile is Manufactured");
22
23
        }
    }
24
25
26 •
    class prog{
27
        public static void main(String[] args){
28
            AndroidMobile o=new AndroidMobile();
29
            o.newFeature();
30
            o.androidMobile();
31
        }
32
   }
```

	Expected	Got	
<b>~</b>	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 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
    public College(String collegeNameP) {
 5 ,
6
        // initialize the instance variables
 7
        collegeName= collegeNameP;
8
9
    public void admitted() {
10
        System.out.println("A student admitted in "+collegeName);
11
12
13
14
    class Student extends College{
15
16
    String studentName;
17
    String depart;
18
    public Student(String collegeNameP, String studentNameP,String departP) {
19 🔻
20
       // initialize the instance variables
21
       super(collegeNameP);
       studentName=studentNameP;
22
23
       depart=departP;
24
25
26
27
28
    public String toString(){
29
30
        // return the details of the student
31
        return "CollegeName : "+collegeName+"\nStudentName : "+studentName+"\nDepartment : "+depart ;
32
33
    }
34 ▼
   class prog {
35 • public static void main (String[] args) {
```

	Expected	Got	
~	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! <

### ■ Lab-05-MCQ

Jump to...

Is Palindrome Number? ►

11