**Object Oriented Programming**

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**Error Based Question:**

Number 1: Find at least two errors in the following program

**package** test;

**import** java.util.Scanner;

**class** First

{

Scanner inp = **new** Scanner(System.***in***);

**public** **int** setValue =0;

**private** **int** value = 0;

First()

{

setValue = inp.nextFloat();

value = setValue;

}

**public** **void** display()

{

System.***out***.println("Variable initialized is: ",setValue);

}

}

**public** **class** Main

{

**public** **static** **void** main(String[] args)

{

First f1 = **new** First();

f1.value = f1.value\*f1.value;

f1.display();

}

}

Answer:

* setValue = inp.nextInt();
* System.***out***.println("Variable initialized is: " + setValue);
* **int** value = 0;

**For the directly access of variable in main , just declare the variable as int type.**

**Number 2:** Find all errors in following programs.

Hint: Look about super() in java before attempting.

**class** Parent {

**int** x;

Parent(**int** x) {

**this**.x = x;

}

**void** display() {

System.***out***.println("Value of x: " + x);

}

}

**class** Child **extends** Parent

{

**int** y;

Child(**int** x, **int** y)

{

**this**.x = x;

**this**.y = y;

}

**void** display()

{

System.***out***.println("Value of x: " + x + ", Value of y: " + y);

}

}

**class** GrandChild1 **extends** Child {

**int** z;

GrandChild1(**int** x, **int** y, **int** z) {

**this**.x = x;

**this**.y = y;

**this**.z = z;

}

**void** display() {

System.***out***.println("Value of x: " + x + ", Value of y: " + y + ", Value of z: " + z);

}

}

**class** GrandChild2 **extends** Child,GrandChild1

{

GrandChild2(**int** x, **int** y)

{

**this**.x = x;

**this**.y = y;

}

**void** display() {

System.***out***.println("Value of x: " + x + ", Value of y: " + y);

}

}

**public** **class** Main {

**public** **static** **void** main(String[] args) {

Child child = **new** Child(10, 20);

child.display();

GrandChild1 gc1 = **new** GrandChild1(10, 20, 30);

gc1.display();

GrandChild2 gc2 = **new** GrandChild2(10, 20);

gc2.display();

}

}

**Answer:**

* **Public int** x;
* **Super(x) and super(x,y)**

To access the variable of one class or parent in other sub classes, we have to use the keyword super()

* **class** GrandChild2 **extends** Child,GrandChild1

Java does not support multilevel inheritance

* GrandChild2 gc2 = **new** GrandChild2(10, 20);

gc2.display();

java does not support the multilevel inheritance ,so there is no need to make an object of that class