Method Overloading in Java

Method Overloading is a feature that allows a class to have two or more methods having same name, if their argument lists are different.

If we have to perform only one operation, having same name of the methods increases the readability of the program.

Method Overloading in Java with examples

**OOPS CONCEPT**

Method Overloading is a feature that allows a class to have two or more methods having same name, if their argument lists are different.

Argument lists could differ in –  
1. Number of parameters is different .  
2. Data type of parameters.  
3. Sequence of Data type of parameters.

Different Number of parameters in argument list

class DisplayOverloading

{

public void disp(char c)

{

System.out.println(c);

}

public void disp(char c, int num)

{

System.out.println(c + " "+num);

}

public static void main(String args[])

{

DisplayOverloading obj = new DisplayOverloading();

obj.disp('a');

obj.disp('a',10);

}

}

Difference in data type of arguments

class DisplayOverloading2

{

public void disp(char c)

{

System.out.println(c);

}

public void disp(int c)

{

System.out.println(c );

}

}

class Sample2

{

public static void main(String args[])

{

DisplayOverloading2 obj = new DisplayOverloading2();

obj.disp('a');

obj.disp(5);

}

}

Sequence of data type of arguments

class DisplayOverloading3

{

public void disp(char c, int num)

{

System.out.println("I’m the first definition of method disp");

}

public void disp(int num, char c)

{

System.out.println("I’m the second definition of method disp" );

}

}

class Sample3

{

public static void main(String args[])

{

DisplayOverloading3 obj = new DisplayOverloading3();

obj.disp('x', 51 );

obj.disp(52, 'y');

}

}

Valid/invalid cases of method overloading

Case 1:

int mymethod(int a, int b, float c)

int mymethod(int var1, int var2, float var3)

Case 2:

int mymethod(int a, int b)

int mymethod(float var1, float var2)

different.

Case 3:

int mymethod(int a, int b)

int mymethod(int num)

Case 4:

float mymethod(int a, float b)

float mymethod(float var1, int var2)

Case 5:

int mymethod(int a, int b)

float mymethod(int var1, int var2)