1. JAVA BASICS

1)
Class:
A class describes the contents of the objects that belong to it: it describes an aggregate of data or variables within the class (instance variables), and defines the operations (methods).
The general form of a class:

```
class classname
 {
        type instance-variable1;
        type instance-variable2;
          // ...
          type instance-variableN;
          type methodname1(parameter-list)
           {
                  // body of method
          }
          type methodname2(parameter-list)
          {
                  // body of method
          }
          ...
          type methodnameN(parameter-list)
          {
                  // body of method
          }
}
```

Object:
An object is an instance of a class; objects have the behaviours of their class. The object is the actual component of programs, while the class specifies how instances are created and how they behave.

Method:
A method is an action or function which an object is able to perform.
The general form of a method:

```
type name(parameter-list)
{
        // body of method
}
```

2)
Java program to print your name -

```
public class Exercise2
{
        public static void main(String[] args)
        {
                System.out.println("Hello!My name is Veda Sahiti.K");
         }
}
```

Output-

Hello!My name is Veda Sahiti.K

3)
Program for a Single line comment, multi-line and documentation comments -

```
public class Exercise3
{
	public static void main(String[] args)
	{
		System.out.println("Comments");
		//This is single line comment
		/*
		This
		is
		multi line
		comment
		*/
		/**
		This
		is
		documentation
		comment
		*/

	 }
}
```

4)
Program to define variables for different data types(int, Boolean, char, float, double) and print on the console -

```
// dynamic initialization.
class Exercise4
{
	public static void main(String args[])
	{
		int a = 89;
		boolean b = true;
		char c = 'A';
		float d = 4.7333434f;
		double e = 4.355453532;
		System.out.println("Integer: " + a);
		if (b == true)
			System.out.println("Yes! Boolean");
		System.out.println("Char: " + c);
		System.out.println("float: " + d);
		System.out.println("double: " + e);
	}
}
```

Output-

```
Integer: 89
```

Yes! Boolean
Char: A
float: 4.7333436
double: 4.355453532

5)

```
class Excercise5
{
	public static void main (String args[])
	{
		int x; // known to all code within main
		x = 10;
		if(x == 10)
		{
			 // start new scope
			int y = 20; // known only to this block
			// x and y both known here.
			System.out.println("x and y: " + x + " " + y);
			x = y * 2;}
			// y = 100; // Error! y not known here
			// x is still known here.
			System.out.println("x is " + x);
		}
	}
}
```

Output-
x and y: 10 20
x is 40

6)

```
public class Excercise6
{
	static void myMethod()
	{
		System.out.println("My name is Veda Sahiti.K");
	}
	public static void main(String[] args)
	{
		myMethod();
	}
}
```

Output-
My name is Veda Sahiti.K