AIM: 1b) Write a case study on public static void main (250 words)

Case study:
Consider the following example
class Sample
{

    public static void main(String[] args)

    {

            System.out.println("Hello World");

    }

}

Let's see what is the meaning of class, public, static, void, main, String[], System.out.println().

class
class is a keyword is used to declare a class in Java.

public
public is a keyword is an access modifier that represents visibility. It means it is visible to all other classes.

static

static is a keyword. If we declare any method as static, it is known as the static method. The core advantage of the static method is that there is no need to create an object to invoke the static method. The main() method is executed by the JVM, so it doesn't require creating an object to invoke the main() method. So, it saves memory.

void
void is the return type of the method. It means it doesn't return any value.

main()
main is a user defined method and it represents the starting point of the program.

String[] args or **String args[]** is used for command line argument.

System.out.println() is used to print statement.
Here, System is a class, out is an object of the PrintStream class, println() is a method of the PrintStream class.

Valid Java main() method signature

public static void main(String[] args)
public static void main(String []args)
public static void main(String args[])
public static void main(String... args)
static public void main(String[] args)
public static final void main(String[] args)
final public static void main(String[] args)
final strictfp synchronized public static void main(String[] args)

Invalid Java main() method signature

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