

# Fundamental of Java Assignment

1. What is programming language?

→ A programming language is a set of instructions, symbols and syntax that allow developers to create software and ~~ser~~ applications. It is used to write code that a computer can understand and execute, performing tasks and solving problems.



2. Why do we need a programming language?

→ Programming language is important in our daily life to enhance and increase the powers of computers, mobile solutions and the internet.

3. What are the features of Java?

→ Java is a popular, high-level programming language that has several key features:

1. Object-oriented: Java is an object-oriented programming language, which means that it supports encapsulation, inheritance and polymorphism, making it easier to create modular, reusable code.

2. Platform Independent: Java code is compiled into byte code, which can be run on any device that has a Java virtual machine installed, making it a platform-independent language.

3. Secure: Java was designed with security in mind and provides features such as type checking and automatic memory management to help prevent security vulnerabilities.

4. Concurrent: Java supports multi-threading, allowing multiple threads to run concurrently within a single program, improving performance and making it easier to create concurrent, scalable applications.



5. **Robust**: Java has built-in error-handling features, such as exception handling, that makes it more robust and less prone to crashes and errors.
6. **Dynamic**: Java is a dynamic language that supports dynamic class loading, automatic memory management (garbage collection), and other features that make it easier to develop and maintain applications.
7. **Large community**: Java has a large, active community of developers and users, making it easier to find help and resources, and to collaborate with others.

#### 4 What is an object?

→ An object is an instance of a class, which is a blueprint that defines the structure and behaviour of objects. An object in Java is created by using the "new" operator to instantiate an instance of a class.

#### 5 What is a class?

→ A class in Java is a blueprint or a template for creating objects. It defines the structure and behaviour of objects that are instances of that class. A class can be thought of as a blueprint for creating objects, and the



Objects as instances of the blueprint.

Explain about the main() method in Java

The main() method in Java is the ~~empty~~ entry point of a Java application and is used to start the execution ~~of~~ of a program.

The main() method has the following

~~single~~ signature:

```
Public static void main(String[] args)
```

Here's an example of a simple main() method.

```
Public class HelloWorld {
```

```
    Public static void main(String[] args)
```

```
    {
```

```
        System.out.println("Hello world");
```

```
    }
```

```
}
```