**Introduction**

**Program: -**

public class Demo {

    public static void main(String[] args) {

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

    }

}

To create a java program, write the above code in any editor.

* IntelliJ id
* Edit +
* Notepad
* Vs code

-> Save this code file name Demo.java

-> for compilation

🡪 Go to command prompt and move to folder where Demo.java is saved

🡪Compile the file using command javac

C:\\{path} java program \ javac

🡪it will create enter mediate code name.

C:\\{path} \ java program \ java

🡪 To run Demo file use command

C:\\{path} \ java program \ javac Demo.java \java Demo

🡪 Demo file use command java Demo.

🡪 Postmatam Demo.java

🡪 Class: - Class is a keyword which is used to create class or skeleton of program.

🡪 Demo: - Demo is a class name

🡪 public: - public is modifier which is used to mat the method public which can be access public.

🡪 static: - static is modifier which is used to load the method at the time of class loading.

🡪 void: - void is a return type.

🡪 main: - main is a method or function which is used to run start the program.

🡪 String[] agrs: - this is an argument which is used at time command line argument.

🡪 public static void main(String[] agrs): - this is the only signature of main method which available JRE.

🡪 System.out.println: - This is a statement used to print data on console.

🡪 java comments

* Single line //
* Multiline /\* \*/
* Documentation /\*\* \*/

🡪 Javadoc bank.java

Datatype: -

Types of datatypes.

1. Numeric
2. Non-numeric

Numeric

Byte 🡪 1 byte

Short 🡪 2

Int 🡪 4

Long 🡪 8

Float 🡪 4 //Decimal

Double 🡪 8 //floating point

Non-numeric

Char 🡪 2

Boolean (reserved literal)

🡪 true

🡪 false

* Class name of java (Camel case)

By default

🡪 non- floating 🡪 int

🡪 floating 🡪 Double

RND 🡪 Research and development

Example: -

🡪 Automatic promotion only has been ranging of data type.

If will be given error.

Example 1: -

public class Demo {

    public static void main(String[] args) {

       int i=6;

       byte b=25;

       float f=b/i;

       System.out.println(f);

    }

}

Example: 2

public class Demo {

    public static void main(String[] args) {

        int i=6;

        byte b=25;

       float f=b/i;

       System.out.println(f);

        char c=65;

        System.out.println(c);

        i=c;

        System.out.println(i);

    }

}

Example 3: -

public class Demo {

    public static void main(String[] args) {

        char c='A';

        int i=c;

        long l=65536;

        float f=l;

        byte b=65;

        System.out.println(c+"-"+i+"-"+f+"-"+b);

    }

}

Lossless 🡪 widening

🡪 implicit type casting

Lossy 🡪 narrowing

🡪 explicit typecasting