→ what are identifiers in java?

   Identifiers are name conventions given to a variable (or) a label given to class (or) a method (or) a package

   Package com.basic strong fundamentals;

   class Demo{
              int a;
              public void display()
              {

              }
   }

→ Can you explain basic structure of Java program.

   import java.util.Scanner;
   public class
        {
              System.out.println("Hello world");

   The basic structure of java program:

   1. package declaration (optional)

   2. import statements (optional)

   3. class declaration;

   4. main method

   5. program logic

   6. comments

Note! It is important to note that the code within the class must be enclosed within the curly braces { }.

*** ⇒ Can we use reserved words as identifiers?

No we can't use reserved words as identifiers

example:

string final = "final string";

private Struct = "Hello";

⇒ *** what are unused keywords?

Goto and const are keywords which are reserved by java but not used until now.

⇒ Can we use predefined class name as identifier?

Yes we can use predefined class name as identifier.

(string String = "Basics"; valid but not recommended.

Because it reduces the readability and creates complexity in code.

⇒ *** Explain var keyword in java.

Var is a keyword which is added in java 10, which allows you to declare variable without defining its type.

```
string str = "my string"
var str = "my string"
```

→ Is null a keyword?

No, null is not a keyword. it is literal

→ *** what are literals?

literals are the constant values which can be assigned to the variables

```
String s = "vignan"
```

Java provides 5 literals which are null, true, false.

1. Integral literal - byte, short, int, long
2. Floating → float and double
3. String literals for strings
4. char literals→ char
5. Boolean literals - true & false

→ *** What are primitive data types in java?

There are 8 primitive data types

1. Byte: The byte data type is an 8 bit signed two's complement in integer
   size = 8 bit   value = -128 to 127

2. Short: It is a 16 bit signed two's complement integer
   size = 16 bit
   value = -32768 to 32767

Both byte & short are useful for saving memory in large arrays.

3. **int:** It is a 32 bit signed 2's complement integer.

   size: 32 bit   value: -2^{31} to $(2^{31}-1)$.

4. **long:** 64-bit two's complement integer

   size: 64 bit   value: -2^{63} to $(2^{63}-1)$

   long class can be used to represent an unsigned 64 bit long.

5. **float:** 32 bit floating point

   we use f or F suffix

   float f = 19.7f

6. **Double:** double is a 64 bit floating point

   It is used default datatype for decimal.

   double d = 7.34456.

   float & double are used for scientific calculators.

7. **Boolean:** it represents only one bit of information.

   either true or false.

8. **char:** char is a single 16-bit unicode character. char c = 'b'.

   → what is implicit conversion in java?

   Type conversion in java is converting a type into another type.

Two types of type casting :→ Implicit
→ explicit

Implicit type conversion includes wides the range
of any type.
   In this one primitive is converted winto
another primitive.
   It is a automatic type conversion which
happens only when both type are compactiable and
target is larger than source type.

int a = 50

long b = a
   Here int a will be converted into long type
without any explicit casting.

→ How to make variable constant so that it
can't change through out the program?

We can declare any variable final, with final
key-word.

ex! final double a = 2.4;