Advanced Java : AJ67

Dt : 26/9/2024(Day-1)

Java Module:

1.CoreJava

2.AdvJava

3.Spring(SpringCore,SpringMVC,SpringJDBC,SpringSecurity)

4.SpringBoot

5.MicroServices

Job Role :

(i)Full Stack Java Developer

(ii)Java Developer

Summary of CoreJava:

1.Java Programming Components(Java Alphabets)

2.Java Programming Concepts

3.Object Oriented Programming features

1.Java Programming Components(Java Alphabets)

(a)Variables

(b)Methods

(c)Constructors

(d)Blocks

(e)Classes

(f)Interfaces

(g)AbstractClasses

2.Java Programming Concepts

(a)Object Oriented Programming

(b)Exception Handling Process.

(c)Java Collection Framework(JCF)

(Data Structure Components)

(d)Multi Threading process

(e)IO Streams and Files

(f)Networking in Java

3.Object Oriented Programming features

(a)Class

(b)Object

(c)Abstraction

(d)Encapsulation

(e)PolyMorphism

(f)Inheritance

Note:

=>Using CoreJava Components and Concepts,we can develop Stand-Alone Applications.

faq:

define Stand-Alone Applications?

=>The application which is installed in one computer and performs actions in the same computer is

known as Stand-Alone Application or DeskTop Application or Windows Application.

=>Non-Server Applications are known as Stand-Alone Applications

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AdvJava:

=>AdvJava will provide the following technologies to develop Server based Applications,which means Web Applications

1.JDBC

2.Servlet

3.JSP

1.JDBC:

=>JDBC stands for 'Java DataBase Connectivity' and which is used to interact with Database product.

2.Servlet:

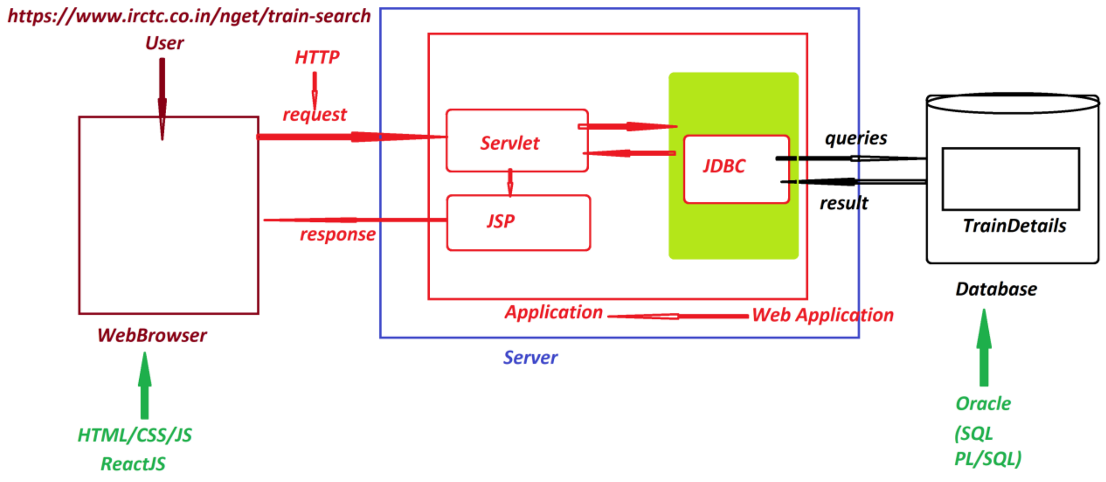
=>Servlet means Server-program and which accepts the request from User(WebBrowser) and provide the

response.

3.JSP:

=>JSP stands for 'Java Server Page' and which is response from Web Application.

Diagram:



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faq:

define Storage?

=>The memory location where the data is available for access is known Storage.

Types of Storages:

=>According to Java Application development,the Storages are categorized into four types:

1.Field Storage

2.Object Storage

3.File Storage

4.Database Storage

1.Field Storage:

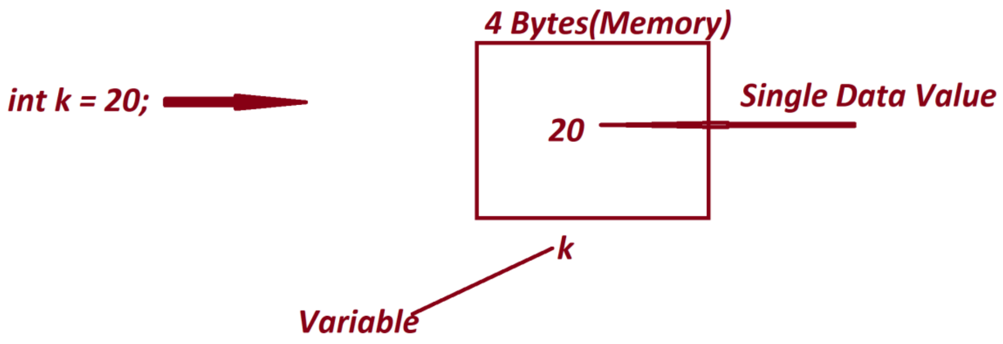
=>The memory generated to hold 'single data value' is known as Field Storage.

=>when we use Primitive datatypes(byte,short,int,long,float,double,char,boolean) in the program,will

generate Field Storages.

Ex:

int k = 20;



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2.Object Storage:

=>The memory generated to hold 'group members' is known as Object Storage.

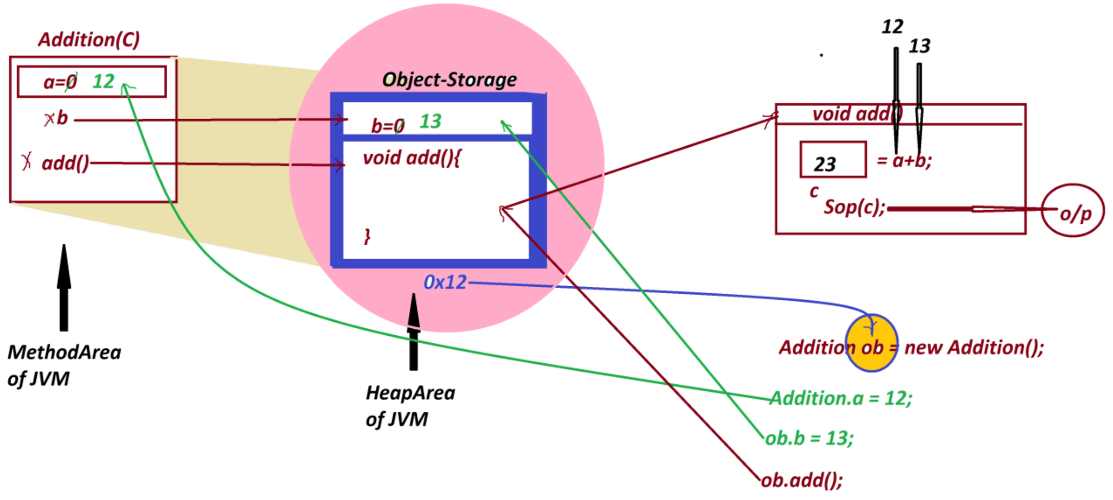
=>when we use NonPrimitive datatypes(Class,Interface,Array,Enum) in the program,will generate Object Storage.

Ex:

```
class Addition
{
  static int a;
       int b;
  void add()
  {
     int c = a+b;
     System.out.println("Sum:"+c);
  }
}
```

Addition ob = new Addition();

Diagram:



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List of Objects Generated from CoreJava:

1.User defined Class Objects

2.String-Objects

   (a)String Class Objects

(b)StringBuffer Class Objects

(c)StringBuilder Class Objects

3.WrapperClass Objects

(a)Byte Object

(b)Short Object

(c)Integer Object

(d)Long Object

(e)Float Object

(f)Double Object

(g)Character Object

(h)Boolean Object

4.Array Objects

(a)Array holding User defined class Objects

(b)Array holding String Objects

(c)Array holding WrapperClass Objects

(d)Array holding DisSimiler Objects(Object Array)

(e)Array holding Array Objects(Jagged Array)

5.Collection<E> Objects

1.List<E> Objects

(a)ArrayList<E> Object

(b)LinkedList<E> Object

(c)Vector<E> Object

=>Stack<E> Object

2.Queue<E> Objects

(a)PriorityQueue<E> Object

=>Deque<E>

(b)ArrayDeque<E> Object

(c)LinkedList<E> Object

3.Set<E> Objects

(a)HashSet<E> Object

(b)LinkedHashSet<E> Object

(c)TreeSet<E> Object

6.Map<K,V> Objects

(a)HashMap<K,V> Object

(b)LinkedHashMap<K,V> Object

(c)TreeMap<K,V> Objects

7.Enum<E> Objects

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