AdvJava - 70

Dt : 30/12/2024(day-1)

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 Concept

(b)Exception Handling Process

(c)Multi-Threading Process

(d)Java Collection Framework(JCF)

(Data structure Components are available)

(e)File Storage in Java

(f)Networking in Java

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3.Object Oriented Programming features

(a)Class

(b)Object

(c)Encapsulation

(d)Abstraction

(e)PolyMorphism

(f)Inheritance

Note:

=>Using CoreJava Components,Concepts and Construction rules we can developmnet NonServer Applications or Stand-Alone-Applications.

faq:

define Stand-Alone-Applications?

=>The Applications which are installed in one Computer and performs actions in the same Computer are known as Stand-Alone-Applications or NonServer Applications.

Note:

=>AdvJava provide the following technologies to develop Server-based-Applications or Web Applications:

1.JDBC

2.Servlet

3.JSP

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1.JDBC:

=>JDBC stands for 'Java DataBase Conectivity' and which is used to interact with database Product.

2.Servlet:

=>Servlet means Server-program,which accepts request from User and provides the response.

3.JSP:

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

faq:

define Server-based-Application?

=>The application which is executed in server environment is known as Server based Application.

Diagram:

Dt : 31/12/2024(day-2)

JDBC(Java DataBase Connectivity):

faq:

define Storage?

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

Types of Storages:

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

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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.

=>Pimitive datatypes will generate Fileld Storages.

(byte,short,int,long.float,double,boolean,char)

Ex:

int k = 10;

Note:

=>The Field Storages can be in,

=>Class Level ----- Static variable

=>Object Level ----- Instance Variable

=>Method Level ------ Local Variable

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2.Object Storage:

=>The memory generated to hold group-members is known as Object-storage.

=>NonPrimitive datatype(referential datatypes) will generate Object Storages.

(Class,Interface,Array and Enum)

Ex:

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```
class Addition
{
  static int a;
        int b;
  void add()
  {
     int c = a+b;
     Sop(c);
  }
}

Additiob ad = new Addition();

Addition.a=13;
ad.b=14;
ad.add();
```

Diagram:

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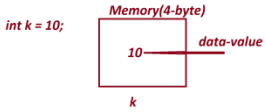

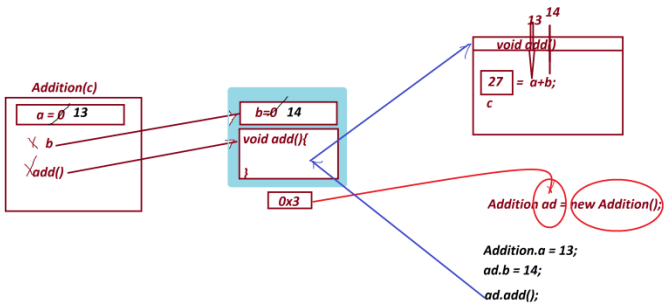

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Types of Objects generated from CoreJava:

1.User defined Class Objects

2.String-Objects

3.WrapperClass-Objects

4.Array-Objects

5.Collection<E>-Objects

6.Map<K,V>-Objects

7.Enum<E>-Objects

1.User defined Class Objects

2.String-Objects

(a)String-Class-Objects

(b)StringBuffer-Class-Objects

(c)StringBuilder-Class-Objects

3.WrapperClass-Objects

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(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 Array-Objects(Jagged Array)

(e)Array holding dis-similer objects(Object Array)

5.Collection<E>-Objects:

1.List<E>

(a)ArrayList<E>-Objects

(b)LinkedList<E>-Objects

(c)Vector<E>-Objects

=>Stack<E>-Objects

2.Queue<E>

(a)PriorityQueue<E>-Objects

=>Deque<E>

(b)ArrayDeque<E>-Objects

(c)LinkedList<E>-Objects

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3.Set<E>

(a)HashSet<E>-Objects

(b)LinkedHashSet<E>-Objects

(c)TreeSet<E>-Objects

6.Map<K,V>-Objects

(a)HashMap<K,V>-Objects

(b)LinkedHashMap<K,V>-Objects

(c)TreeMap<K,V>-Objects

(d)Hashtable<K,V>-Objects

7.Enum<E>-Objects

---

faq:

wt is the diff b/w

(i)Object

(ii)Object reference

(iii)Object reference Variable

(i)Object:

=>The memory generated to hold instance members of class is known as Object.

(ii)Object reference:

=>The address location where the Object is created is known as Object reference.

(iii)Object reference Variable:

=>The NonPrimitive datatype variable which is holding reference is known as Object

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reference variable or Object name.

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