**Durga part-7**

1. new vs newInstance()

we can use ‘new’ operator to crete an object if we know class namae at beginning.

newInstance is method present in class Class.we can use newInstance object if we don’t know class name at beginning and it is available dynamically at run time.

In the case of new operator bassed on our requirement we can invoke any constructor..but newinstance method internally called no-arg construactor,hence to use newInstance method,compulsory corresponding class should contain no-arg constructor.otherwise we will get runtime exception saying instansiation exception.

While using new operator at runtime if corresponding .class file is not available then we will get runtime exception saying NoclassDefFoundError:Test

While using newInstance method,at runtime if corresponding .class file is not available then we will get runtime excpetion saying ClassnotFoundException

**Diff b/w ClassNotFoundExceptioon and NoClassDefFoundError**

For hard coded class names ,at run time if the corresponding .class file is not available then we will get runtime exception saying **NoClassDefFoundError,**which is unchecked

e.g.

Test t=new Test();

At runtime,if test.class file is not available then we will get runtime exception saying **NoClassDefFoundError:Test**

For dynamically provided class names ,at runtime if corresponding .class file is not available then we will exception saying **ClassNotFoundException**,which is checked exception.

e.g.

Object o=Class.forName(args[0]).newInstance();

Java Test >Student

At runtime if student.class file is not available then we will get runtime exception saying **ClassNotFoundException:Student**

**Diff between instanceof and isInstance()**

instanceof is an operator i java .we can use instance of to check whether the given object is of particular type or not and we know the type at the beginning

e.g.

Thread t=new Thread ();

Sop(t instanceof Runnable);

Sop( t instanceof Object);

isInstance is method present in java.lang.class.we can use isInstance method to check whether the given object is particular or not and we don’t the type at beginning and it is available dynamically at runtime

e.g.

class Test

{

P S V main(String[] args) throws Exception

{

Thread t=new Thread();

Sop(Class.forName(args[0]).isInstance(t))

}}

Java Test > Runnable

o/p:true

Java Test > String

o/p: false

isInstance () method is method-enquivalent to instanceof operator