

Name:- Patil.Omkar.Ramchandra

Roll no:- 21102A0003

Branch:- CMPN-A

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Assignment NO:- 2

Q.1 Differentiate between Abstract class and interface.

Ans:-

	Abstract class	Interface
(i)	Abstract class can have abstract and non-abstract methods	(i) Interface can have only abstract methods. it can have default & static methods also.
(ii)	Abstract class doesn't support multiple inheritance.	(ii) Interface supports multiple inheritance.
(iii)	Abstract class can have final, non-final, static and non-static variables.	(iii) Interface has only static and final variables.
(iv)	Abstract class can provide the implementation of interface.	(iv) Interface can't provide the implementation of abstract class.
(v)	The abstract keyword is used to declare abstract class.	(v) Interface keyword is used to declare interface.
(vi)	An abstract class can extend another java class and implement multiple java interfaces.	(vi) An interface can extend another java interface only.
(vii)	Example:- public abstract class Shape { public abstract void draw(); }	(vii) Example:- public interface Drawable { void draw (); }

Q.2. Write a program that will create user defined exception "StringMismatch", which shall get thrown when entered two strings are not same.

Ans.

```

class StringMismatch extends Exception
{
    String str1;
    StringMismatch (String str2)
    {
        str1 = str2;
    }
    public String toString()
    {
        return ("String Mismatch occurred! " + str1);
    }
}

class Example1
{
    public static void main (String x[]) {
        try {
            System.out.println("starting of try block");
            throw new StringMismatch("This is My error
            Message");
        }
        catch (StringMismatch exp) {
            System.out.println("catch Block");
            System.out.println(exp);
        }
    }
}

```

output:-

starting of try block

catch Block

String Mismatch occurred : This is My error Message