

## Assignment 11

Title: Interfaces and packages.

Problem: Write a Java program which will demonstrate a concept of interfaces and packages In this assignment design and use of customized interfaces and packages for a specific application are expected.

Objective: 1) To understand the use of interfaces. 2) To understand the use of packages.

Outcome: 1) To be able to implement interfaces in joura.
2) To be able to use packages for spécific application

Theory:

Interfaces:

An interface in java is a blueprint of a class. It has static constants and abstract methods. The interface in java is a mechanism to achieve abstraction. There can be only abstract methods in the java interface not methods body. An interface declares (describes) methods but does not supply bodies for them. It is used to achieve abstraction and multiple inheritance in JAVA. Interface also represents is a relationship. It cannot be instantiated just like abstract class.



Enample: Interface Keylistener {

public void key pressed (Keyfvent e);

public void key Released (Keyfvent e);

public void KeyTyped (Keyfvent e); There are mainly three reasons to interface. They are given below.

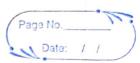
1) It is used to achieve abstraction

2) By interface, we can support the fur of multiple inheritance. 3) It can be used to achieve bose coupling. An interface is a reference type in Java. It is similar to class. It is a collection of abstraction methods. A class implements an interface thereby inheriting the abstract methods interface. Along with abstract metho an interface may also contain constants, default methods, static methods & nested types And an interface contains behaviors that a class implements unless the class that implements the viterface is abstract, all the methods of the interface need to be defined in the class. Interfaces have the following properties.

1) And interface is implicitly abstract. You not need to use the abstract keyword while declaring an interface



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2)	Each method in an interface is also
	Each method in an interface is also implicitly abstract, so the abstract keyword is
	not reeded. I show in a bridge in any
3)	You cannot instantiate an interface. An interface may also contain constants (final variables)
u)	An interface may also contain constants
	(final variables)
	O $I$
	Vachages:
	types of classes, interfaces and sub-packages
	expes of classes, interfaces and sub-packages
	Package in jowa can be categorized in two form, built-in package and wer-defined package. There are many built-in packages such as
	There are many fruitting acknown such as
	1010 June out to all a solito not in til
	java, tang, out, java x, swing, net, io, util,
	Packager have following properties:
marine	Packages have following properties: They have are containers for classes linterfaces
	to avoid name collision. Indular he
2)	It is stored in heirarchial manner and explicitly imported into new class using
	explicitly imported into new class using
	import statement.
3)	It provide both raming and visibility control
1,1	mechanism
<u> </u>	Using it classes/interfaces can easily be maintained



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	Simple interface example:	1,377
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	void print (); I contractive	5 () <del>                                     </del>
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	class A implements printable?  public Void print()? System out print by  public static void main (String args ())	TREST 101
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	outtic static void main (Stains a ross)	1)
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