

JAVA Open Book Test

1. Write the difference between nested classes and inner classes with minimum 5 differences.
2. List the advantages of packages.
3. List any 10 classes (or) Interfaces of java.io package.

1A:-

Nested class

- A nested class is any class defined within another class.
- It can be static or non-static.
- Static nested classes cannot access instance members of the outer class directly.
- Static nested classes are accessed using the outer class name.
- Static nested classes are mainly used for grouping utility or helper classes.
- Can be created without creating an object of the outer class.
- Used for organising code logically.

Inner class

- An inner class is nested inside a class that non-static.

- It is always non-static.

- Inner classes can access all members of the outer class.

- Inner classes are accessed through an instance of the outer class.

- Inner classes are used when an object of inner class depends on a object of outer class.

- Requires an object of the outer class to be created.

- Used for tight interaction with outer class members.

Q1:- Advantages of packages

1. Avoids confusion - same class names can be used in different packages without conflict.
2. Easy to use again - you can use classes from a package in other programs.
3. Supports modular work - divides a large program into small, easy parts.
4. Control access - you can decide which parts of the code can be used by others.
5. Easy to manage - makes big projects simple to handle and update.
6. Hides details - others can use your classes without seeing the full codes.
7. Keeps code neat - helps to group similar classes together and stay organized.

3AF

1. File
2. FileInputStream
3. FileOutputStream
4. FileReader
5. FileWriter
6. BufferedReader
7. BufferedWriter
8. InputStream
9. OutputStream
10. printStream.