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DATE
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Q.1 Attempt any 2 of the following.

(a) Explain and 4 methods of "StringBuffer" with programming example.

Ans. StringBuffer is a peer class of String that provides much of the functionality of strings. String represents fixed-length, immutable character sequences while StringBuffer represent mutable, growable and writable character sequences.

StringBuffer may have characters and substrings inserted in the middle or appended to the end. It will automatically grow to make room for such additions and often has more characters preallocated than are actually needed, to allow room for growth.

Methods of StringBuffer class:

| Method | Description |
|---|---|
| append(String s) | It is used to append specified string with this string. append() method is overloaded like append(char), append(boolean), etc. |
| insert(int offset, String s) | It is used to insert specified string with this string at the specified position. The insert() method is overloaded like insert(int, char), etc. |
| replace(int startIndex, int endIndex, String str) | It is used to replace string from specified startIndex and endIndex. |
| delete(int startIndex, int endIndex) | It is used to delete string from specified startIndex and endIndex. |

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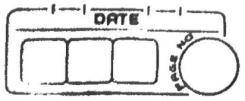


Example:-

```
class A {
    public static void main(String x[]){
    StringBuffer s= new StringBuffer(" Omkar");
    s.append(" Patil");
    System.out.println(s);
    s.append(1);
    System.out.println(s);
    }
}
```

Output:-

Omkar Patil
OmkarPatil1

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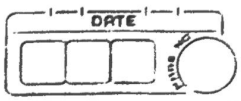


Q.1

(b) Write a short note on JDBC in Java.

Ans: JDBC stands for Java Database connectivity, which is a standard java API for database-independent connectivity between java programming language and a wide range of a databases.

The JDBC library includes API's for each of the tasks mentioned below that are commonly associated with database Usage.

(i) Making a connection to a database.
(ii) Creating SQL or MySQL statements.
(iii) Executing SQL or MySQL queries in database
(iv) Veiwing & Modifying the resulting records.

We can use JDBC API to handle database using java program and can perform the following activities.

(i) Connect to the database.
(ii) Execute queries and update statements to database.
(iii) Retrive result recieved from the database.

Accessing database includes performing following operation on database:

(i) Insert a new record in database table.
(ii) Delete a particular record from database table.
(iii) Update a particular record from database table.
(iv) Display the ~~contest~~ contents of database table.

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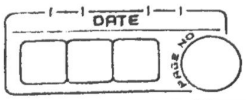


To perform these operations on database table we need to implement following steps in JDBC program:

Step 1:- importing a package

```
import java.sql.*;
```

Step 2:- Loading a Driver

```
Class.forName("com.mysql.jdbc.Driver");
```

Step 3:- Esntablishing a connection.

```
Connection c = DriverManager.getConnection("jdbc:
                mysql://localhost/dbname","username",
                "password");
```

Step 4:- creating a statment

```
Statement s = c.createStatement();
```

Step 5:- Excecuting statement

```
s.execute();
s.executeUpdate();
ResultSet rs = s.executeQuery()
```

Step 6:- Retriving a Result

```
ResultSet rs = s.getResultSet();
```

Step 7:- closing connection.

```
c.close();
```