

LAB FAT

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Q4)

(a)

Code:

```
import java.util.*;
```

```
class Fat
```

```
{
```

```
    public static void main(String[] args)
```

```
    {
```

```
        Scanner scanner = new Scanner(System.in);
```

```
System.out.println("Enter a string : ");  
String userInput = scanner.nextLine();  
char[] charArray = userInput.toCharArray();  
for (int i = 0; i < charArray.length; i++)  
{  
    for (int j = i + 1; j < charArray.length; j++)  
    {  
        if (Character.toLowerCase(charArray[j]) <  
            Character.toLowerCase(charArray[i]))  
        {  
            swapChars(i, j, charArray);  
        }  
    }  
}
```

```
        System.out.println("Sorted string " +  
String.valueOf(charArray));  
    }  
  
    private static void swapChars(int i, int j, char[]  
charArray)  
    {  
        char temp = charArray[i];  
        charArray[i] = charArray[j];  
        charArray[j] = temp;  
    }  
}
```

Output:

The screenshot shows a Notepad++ window with a Java file named 'Fat.java'. The code is as follows:

```
1 import java.util.*;
2 class Fat
3 {
4     public static void main(String[] args)
5     {
6         Scanner s = new Scanner(System.in);
7         String str = s.nextLine();
8         char[] ch = str.toCharArray();
9         for (int i = 0; i < ch.length; i++)
10         {
11             for (int j = i + 1; j < ch.length; j++)
12             {
13                 if (ch[i] > ch[j])
14                 {
15                     swapChars(ch, i, j);
16                 }
17             }
18         }
19         System.out.println("Sorted string is:");
20         for (int i = 0; i < ch.length; i++)
21         {
22             System.out.print(ch[i] + " ");
23         }
24         System.out.println();
25     }
26     private static void swapChars(char[] ch, int i, int j)
27     {
28         char temp = ch[i];
29         ch[i] = ch[j];
30         ch[j] = temp;
31     }
32 }
```

Overlaid on the code is a Command Prompt window showing the execution of the program:

```
C:\Users\abc\Downloads>javac Fat.java
C:\Users\abc\Downloads>java Fat
Enter a string :
helloworldwelcometovit
Sorted string is:
cdeehilllllmoootttvw
```

(b)

Code:

```
package com.student.manage;
import java.sql.*;

public class Connect {
    static final String driver="com.mysql.jdbc.Driver";
    static final String url="jdbc:mysql://localhost:3306/emp";

    static final String user="root";
    static final String password="1234";
    public static void main(String args[])
    {
        Connection con=null;
        Statement stmt=null;

        int basicpay=10000;
        int leavedays;
        int years=5;
        int grosssal;
        int netsal;
        try
```

```

{

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

    System.out.println("Connecting to database...");
    con=DriverManager.getConnection(url, user, password);

    stmt = con.createStatement();
    String sql;
    sql = "SELECT basicpay,leavedays,years,grosssal,netsal FROM emp";
    ResultSet rs = stmt.executeQuery(sql);

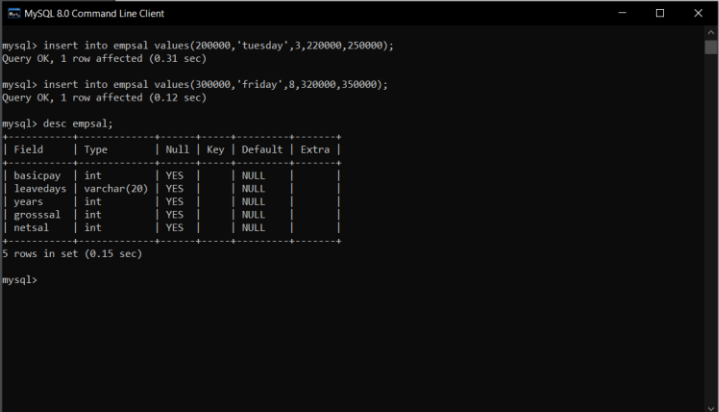
    while(rs.next()){
        netsal=basicpay*(30/100);
        leavedays=basicpay*(80/100);
        grosssal=basicpay+years+leavedays+netsal;

        System.out.print("gross salary= " + grosssal);
        System.out.print(",net salary="+ netsal);
    }

    rs.close();
    stmt.close();
    con.close();
}
catch(SQLException se)
{
    se.printStackTrace();
}
catch(Exception e)
{
    e.printStackTrace();
}
finally{
    try{
        if(stmt!=null)
            stmt.close();
    }catch(SQLException se2){
    }
    try{
        if(con!=null)
            con.close();
    }catch(SQLException se){
        se.printStackTrace();
    }
}
System.out.println("Program finished");
}
}

```

Output:



The screenshot shows a MySQL 8.0 Command Line Client window. The user has executed two INSERT statements and a DESCRIBE statement. The output shows that two rows were inserted successfully. The DESCRIBE statement shows the structure of the 'empsal' table, which has five columns: basicpay, leavedays, years, grosssal, and netsal. All columns are of integer type and have a NULL constraint.

```
mysql> insert into empsal values(200000,'tuesday',3,220000,250000);
Query OK, 1 row affected (0.31 sec)

mysql> insert into empsal values(300000,'friday',8,320000,350000);
Query OK, 1 row affected (0.12 sec)

mysql> desc empsal;
+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+
| basicpay | int | YES | | NULL | |
| leavedays | varchar(20) | YES | | NULL | |
| years | int | YES | | NULL | |
| grosssal | int | YES | | NULL | |
| netsal | int | YES | | NULL | |
+-----+
5 rows in set (0.15 sec)

mysql>
```

