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*R.No:08*

***Fragmentation***

***1.Fragmentation:***

***Code:***

*import java.sql.\*;*

*import java.util.\*;*

*class Part{*

*public static void main(String args[]){*

*try{*

*//step1 load the driver class*

*Scanner sc=new Scanner(System.in);*

*Class.forName("oracle.jdbc.driver.OracleDriver");*

*String url="jdbc:oracle:thin:@DESKTOP-8KR21VC:1521:sqlplus";*

*//step2 create the connection object*

*Connection con=DriverManager.getConnection(url,"scott","finalbtech8");*

*//step3 create the statement object*

*Statement stmt=con.createStatement();*

*/\**

*int count = stmt.executeUpdate(*

*"CREATE TABLE UserRegis"+"(ID int,"+" Name VARCHAR(20),"+ " Age int,"+"gender char(1),"+ "Email VARCHAR(30),"+ "Password VARCHAR(10),"+ "Height int,"+" Weight int)");*

*System.out.println("Table created.");*

*//stmt.close();*

*\*/*

*int ch;*

*do{*

*System.out.print("\n1.Insert into the table\n2.Delete\n3.Update\n4.Display\n5.Exit:\nChoice:");*

*ch=sc.nextInt();*

*System.out.println();*

*switch(ch){*

*case 1:*

*Scanner sf=new Scanner(System.in);*

*System.out.print("Enter the User ID :");*

*int x=sf.nextInt();*

*sf.nextLine();*

*System.out.print("Enter the User Name : ");*

*String y=sf.nextLine();*

*System.out.print("Enter the User Age : ");*

*int z=sf.nextInt();*

*sf.nextLine();*

*System.out.print("Enter the User Gender(F/M) : ");*

*String w=sf.next();*

*System.out.print("Enter the User Mail : ");*

*String p=sf.next();*

*System.out.print("Enter the User Password: ");*

*String q=sf.next();*

*System.out.print("Enter the User Height : ");*

*int r=sf.nextInt();*

*System.out.print("Enter the User Weight : ");*

*int s=sf.nextInt();*

*//Statement stmt=con.createStatement();*

*stmt.executeUpdate("insert into UserRegis values("+x+",'"+y+"',"+z+",'"+w+"','"+p+"','"+q+"',"+r+","+s+")");*

*System.out.println("Record Successfully Inserted...");*

*break;*

*case 2:*

*Scanner sc1=new Scanner(System.in);*

*System.out.print("Enter UserID for delete:");*

*int x2=sc1.nextInt();*

*String sql1 = "DELETE FROM UserRegis WHERE ID="+x2;*

*stmt.executeUpdate(sql1);*

*System.out.println("Record Successfully Deleted.");*

*break;*

*case 3:*

*Scanner sc2=new Scanner(System.in);*

*System.out.print("Enter the User's new name: ");*

*String y1 = sc2.next();*

*System.out.print("Enter UserID of user whose name you want to update:");*

*int x1=sc2.nextInt();*

*String sql2 = "update UserRegis set Name='" + y1+ "' where ID=" + x1;*

*int no = stmt.executeUpdate(sql2);*

*if (no > 0)*

*System.out.println(no + " Records Successfully Updated");*

*else*

*System.out.println("Invalid User record");*

*break;*

*case 4:*

*Scanner sc3=new Scanner(System.in);*

*System.out.print("1.Display All Records\n2:Display According to condition(Horizontal Partitioning)\n3:Display only perticular Column(Vertical Partitioning)\n4:Mixed Fragmentation\nChoice:");*

*int choice=sc3.nextInt();*

*switch(choice){*

*case 1:*

*String sql3 = "select \* from UserRegis";*

*//System.out.println(sql1);*

*ResultSet rs=stmt.executeQuery(sql3);*

*while(rs.next()){*

*System.out.println(rs.getInt(1)+" "+rs.getString(2)+" "+rs.getInt(3)+" "+rs.getString(4)+" "+rs.getString(5)+" "+rs.getString(6)+" "+rs.getInt(7)+" "+rs.getInt(8));*

*}*

*break;*

*case 2:*

*System.out.print("Enter Age of users according to which you want to do Horizontal fragmentation:");*

*int uage=sc3.nextInt();*

*System.out.println("\nFragment 1");*

*String sql4 = "select \* from UserRegis Where Age>="+uage;*

*//System.out.println(sql1);*

*ResultSet rs1=stmt.executeQuery(sql4);*

*while(rs1.next()){*

*System.out.println(rs1.getInt(1)+" "+rs1.getString(2)+" "+rs1.getInt(3)+" "+rs1.getString(4)+" "+rs1.getString(5)+" "+rs1.getString(6)+" "+rs1.getInt(7)+" "+rs1.getInt(8));*

*}*

*System.out.println("\nFragment2");*

*ResultSet rs22=stmt.executeQuery("select \* from UserRegis where Age<"+uage);*

*while(rs22.next()){*

*System.out.println(rs22.getInt(1)+" "+rs22.getString(2)+" "+rs22.getInt(3)+" "+rs22.getString(4)+" "+rs22.getString(5)+" "+rs22.getString(6)+" "+rs22.getInt(7)+" "+rs22.getInt(8));*

*}*

*break;*

*case 3:*

*System.out.print("Enter First column name you want to display:");*

*String cname=sc3.next();*

*System.out.print("Enter second column name you want to display:");*

*String cname01=sc3.next();*

*String sql5 = "select ID,"+cname+","+cname01+" from UserRegis";*

*ResultSet rs2=stmt.executeQuery(sql5);*

*System.out.println("\nVertical Fragment :");*

*while(rs2.next()){*

*System.out.println(rs2.getInt(1)+" "+rs2.getString(cname.toString())+" "+rs2.getString(cname01.toString()));*

*}*

*break;*

*case 4:*

*System.out.print("Enter column name you want to display:");*

*String cname1=sc3.next();*

*System.out.print("Enter Age of user whose data you want to display:");*

*int uAge=sc3.nextInt();*

*String sql6 = "select ID,"+cname1+" from UserRegis Where Age>="+uAge;*

*ResultSet rs3=stmt.executeQuery(sql6);*

*System.out.println("\nFragment 1:");*

*while(rs3.next()){*

*System.out.println(rs3.getInt(1)+" "+rs3.getString(cname1.toString()));*

*}*

*String sql61 = "select ID,"+cname1+" from UserRegis Where Age<"+uAge;*

*ResultSet rs31=stmt.executeQuery(sql61);*

*System.out.println("\nFragment 2:");*

*while(rs31.next()){*

*System.out.println(rs31.getInt(1)+" "+rs31.getString(cname1.toString()));*

*}*

*break;*

*default:System.out.println("Wrong choice:");*

*}break;*

*case 5:*

*System.out.println("Program Ends!!!");*

*break;*

*default:System.out.println("Wrong Choice");*

*break;*

*}*

*}while(ch!=5);*

*con.close();*

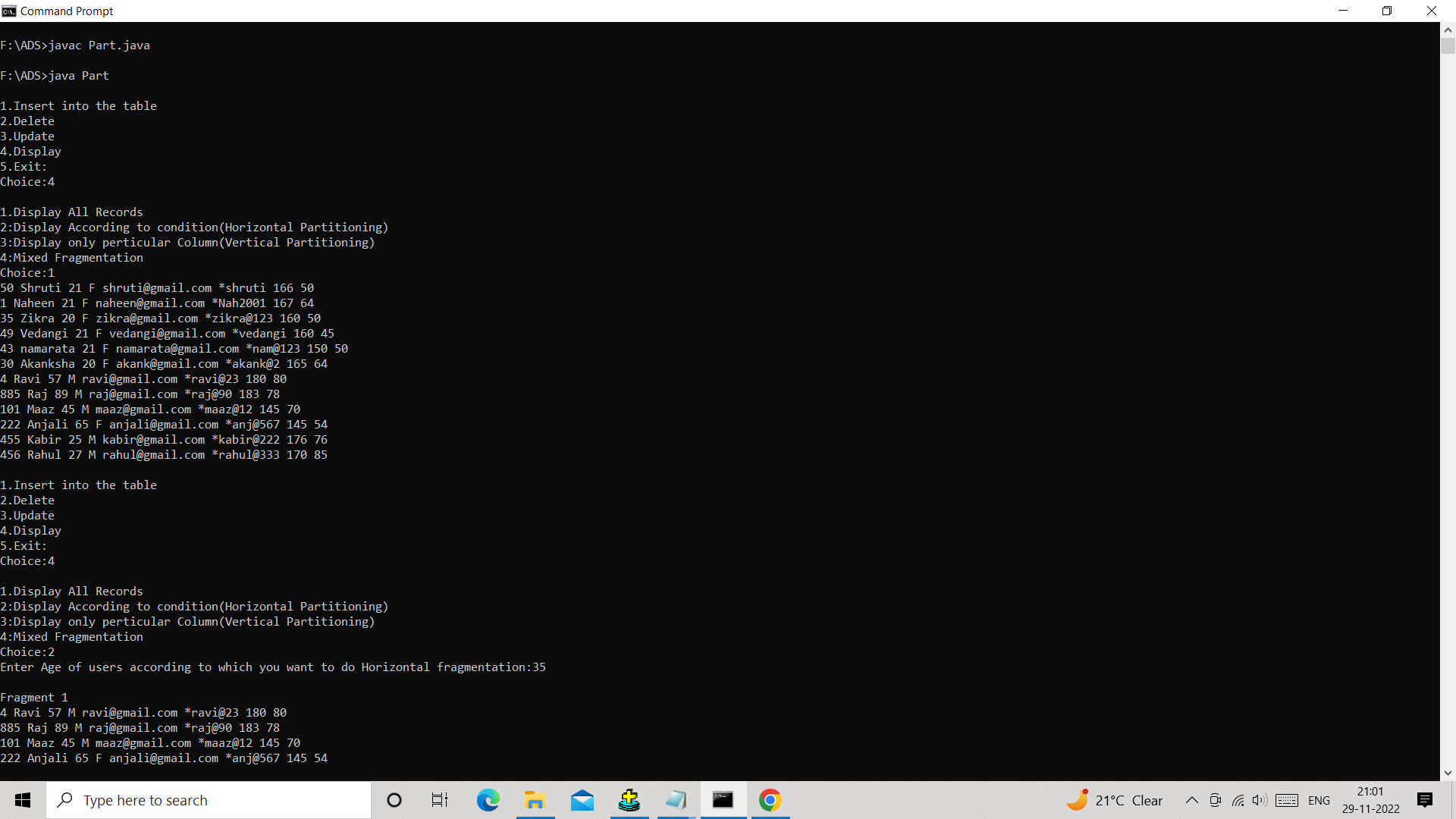
*}*

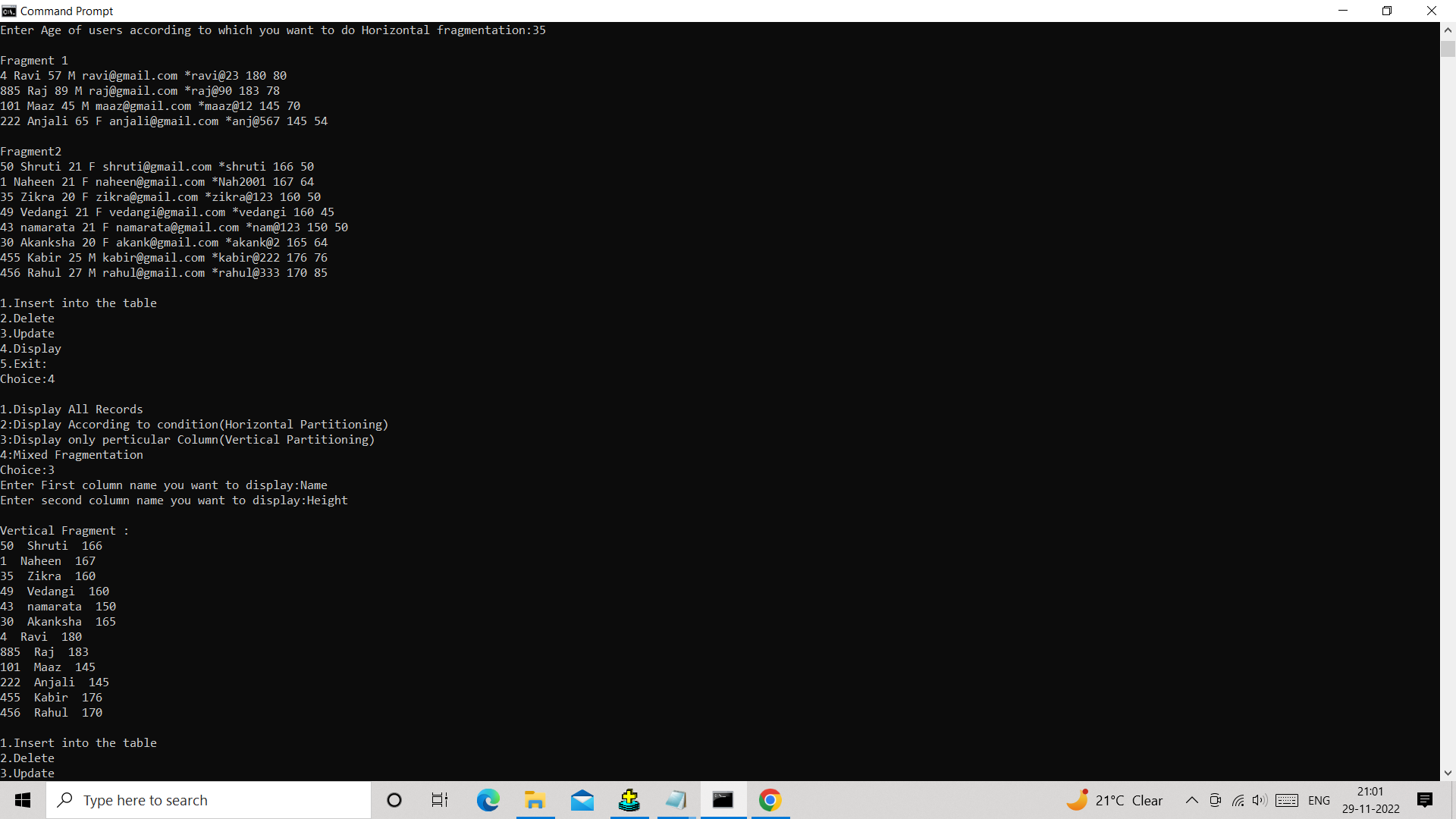
*catch(Exception e){ System.out.println(e);}*

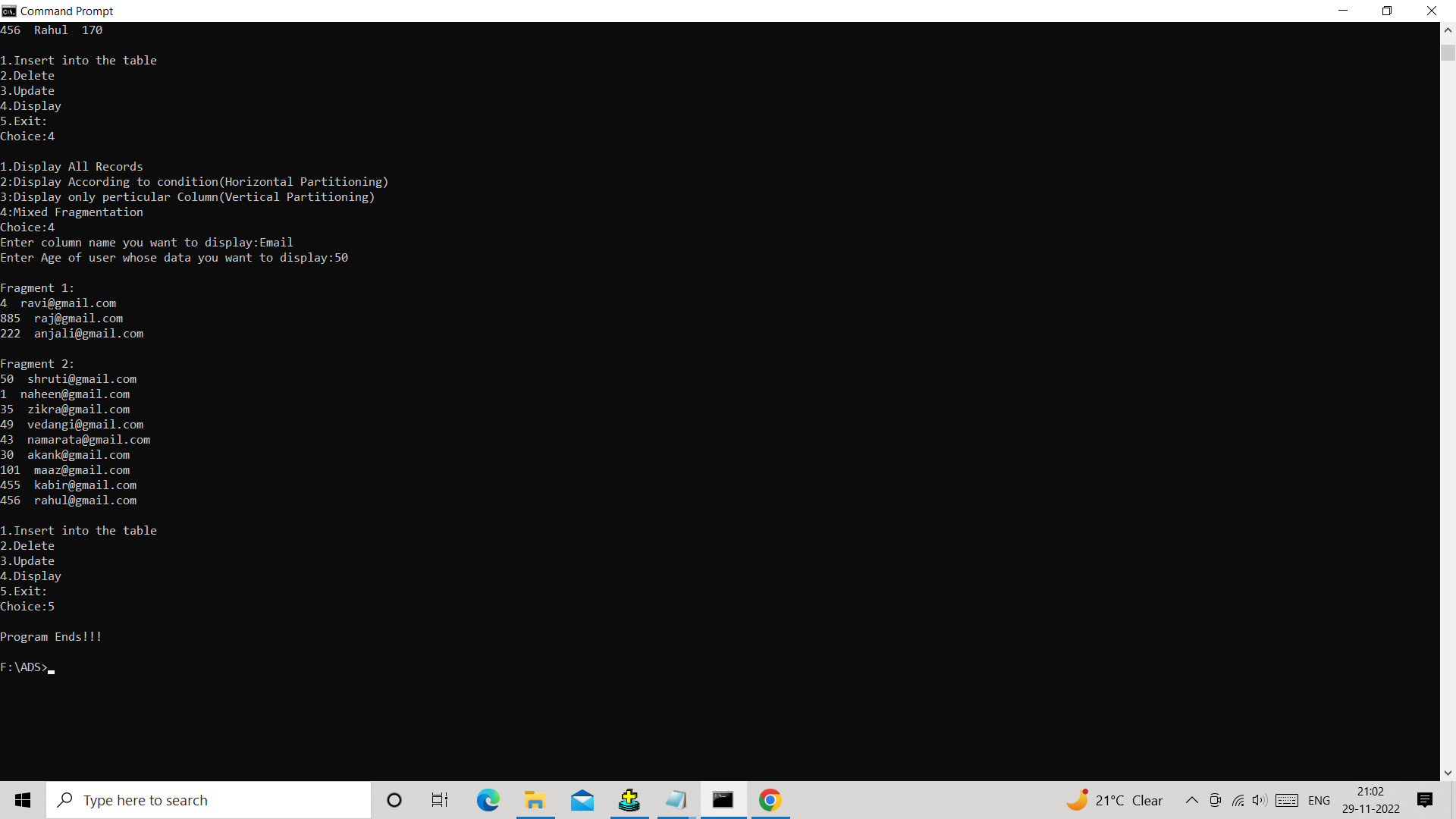
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*}*

***Output:***

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