```
import java.io.*;
import java.util.*;
public class A8
{
   static BufferedReader br = new BufferedReader(new InputStreamReader(System.in));
   public void addRecords() throws IOException
   {
      PrintWriter pw = new PrintWriter(new BufferedWriter(new FileWriter("records.txt", true)));
      String studentName, address, studentId;
      int rollNo, studentClass;
      float marks;
      String s;
      boolean addMore;
      do
      {
         System.out.print("\nEnter Student Name: ");
         studentName = br.readLine();
         System.out.print("Student ID: ");
         studentId = br.readLine();
         System.out.print("Roll No: ");
         rollNo = Integer.parseInt(br.readLine());
         System.out.print("Address: ");
         address = br.readLine();
         System.out.print("Class: ");
         studentClass = Integer.parseInt(br.readLine());
         System.out.print("Marks: ");
         marks = Float.parseFloat(br.readLine());
         pw.println(studentName + "\t" + studentId + "\t" + rollNo + "\t" + address + "\t" + studentClass + "\t"
+ marks);// Write record to file
         System.out.println("Record added successfully!");
         System.out.print("\nDo you want to add more records? (y/n): ");
         s = br.readLine();
         addMore = s.equalsIgnoreCase("y");
      }while(addMore);
      pw.close();
      showMenu();
   }
   public void readRecords() throws IOException
   {
      try
      {
         BufferedReader file = new BufferedReader(new FileReader("records.txt"));
         String record;
         System.out.println("Displaying Records:");
         while ((record = file.readLine()) != null)
         {
            System.out.println(record);
         }
         file.close();
      } catch (FileNotFoundException e)
      {
         System.out.println("ERROR: File not found!");
      }
      showMenu();
   }
```

```
public void searchRecords() throws IOException
{
    try
    {
        BufferedReader file = new BufferedReader(new FileReader("records.txt"));
        String record;
        boolean found = false;
        System.out.print("Enter the Student ID to search: ");
        String searchId = br.readLine();
        while ((record = file.readLine()) != null)
        {
            String[] line = record.split("\t");
            if (searchId.equalsIgnoreCase(line[1]))
            {
                System.out.println("Record found: " + record);
                found = true;
                break;
            }
        }
        if (!found)
        {
            System.out.println("Record not found.");
        }
        file.close();
    }
    catch (FileNotFoundException e)
    {
        System.out.println("ERROR: File not found!");
    }
    showMenu();
}
public void deleteRecords() throws IOException
{
    try
    {
        BufferedReader file = new BufferedReader(new FileReader("records.txt"));
        PrintWriter pw = new PrintWriter(new BufferedWriter(new FileWriter("records_temp.txt", true)));
        String record;
        boolean found = false;
        System.out.print("Enter the Student ID of the record to delete: ");
        String searchId = br.readLine();
        while ((record = file.readLine()) != null)
        {
            String[] line = record.split("\t");
            if (!searchId.equalsIgnoreCase(line[1]))
            {
                pw.println(record);
            }
            else
            {
                System.out.println("Record deleted: " + record);
                found = true;
            }
        }
        file.close();
```

```
            pw.close();
            if (!found)
            {
                System.out.println("Record not found.");
            }
            File oldFile = new File("records.txt"); // Replace old file with updated file
            File newFile = new File("records_temp.txt");
            oldFile.delete();
            newFile.renameTo(oldFile);
        }
        catch (FileNotFoundException e)
        {
            System.out.println("ERROR: File not found!");
        }
        showMenu();
    }
    public void updateRecords() throws IOException
    {
        try
        {
            BufferedReader file = new BufferedReader(new FileReader("records.txt"));
            PrintWriter pw = new PrintWriter(new BufferedWriter(new FileWriter("records_temp.txt", true)));
            String record;
            boolean found = false;
            System.out.print("Enter the Student ID of the record to update: ");
            String searchId = br.readLine();
            while ((record = file.readLine()) != null)
            {
                String[] line = record.split("\t");
                if (!searchId.equalsIgnoreCase(line[1]))
                {
                    pw.println(record);
                }
                else
                {
                    System.out.println("Record found: " + record);
                    System.out.print("Enter updated marks: ");
                    String updatedMarks = br.readLine();
                    pw.println(line[0] + "\t" + line[1] + "\t" + line[2] + "\t" + line[3] + "\t" + line[4] + "\t" +
updatedMarks);
                    found = true;
                    System.out.println("Record updated.");
                }
            }
            if (!found)
            {
                System.out.println("Record not found.");
            }
            file.close();
            pw.close();
            File oldFile = new File("records.txt"); // Replace old file with updated file
            File newFile = new File("records_temp.txt");
            oldFile.delete();
            newFile.renameTo(oldFile);
        }
```

```
        catch (FileNotFoundException e)
        {
            System.out.println("ERROR: File not found!");
        }
        showMenu();
    }
    public void clear(String filename) throws IOException
    {
        PrintWriter pw = new PrintWriter(new BufferedWriter(new FileWriter(filename)));
        pw.close();
        System.out.println("All records cleared successfully!");
        showMenu();
    }
    public void showMenu() throws IOException
    {
        System.out.println("1.)Add Records  2.)Display Records  3.)Clear All Records  4.)Search Records
5.)Delete Records  6.)Update Records  7.) Exit");
        System.out.print("Enter your choice: ");
        int choice = Integer.parseInt(br.readLine());
        System.out.println();

        switch (choice) {
            case 1:
                addRecords();
                break;
            case 2:
                readRecords();
                break;
            case 3:
                clear("records.txt");
                break;
            case 4:
                searchRecords();
                break;
            case 5:
                deleteRecords();
                break;
            case 6:
                updateRecords();
                break;
            case 7:
                System.exit(0);
                break;
            default:
                System.out.println("Invalid choice! Try again.");
                showMenu();
        }
    }
    public static void main(String[] args) throws IOException
    {
        A8 app = new A8();
        app.showMenu();
    }
}
```

Output:

```
1.)Add Records  2.)Display Records  3.)Clear All Records  4.)Search Records  5.)Delete Records
6.)Update Records  7.) Exit
Enter your choice: 1


Enter Student Name: Pranav Ijantkar
Student ID: 6942
Roll No: 3080
Address: Pune
Class: 9
Marks: 91
Record added successfully!

Do you want to add more records? (y/n): n
1.)Add Records  2.)Display Records  3.)Clear All Records  4.)Search Records  5.)Delete Records
6.)Update Records  7.) Exit
Enter your choice: 2

Displaying Records:
Pranav Ijantkar 6942 3080 Pune 9 91.0
1.)Add Records  2.)Display Records  3.)Clear All Records  4.)Search Records  5.)Delete Records
6.)Update Records  7.) Exit
Enter your choice: 4

Enter the Student ID to search: 6942
Record found: Pranav Ijantkar 6942 3080 Pune 9 91.0
1.)Add Records  2.)Display Records  3.)Clear All Records  4.)Search Records  5.)Delete Records
6.)Update Records  7.) Exit
Enter your choice: 7
```