Opgave 4.3

(a) Med klassen `StringTokenizer`:

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

public class Emailer {
    public static void main(String[] args) {
        try {
            BufferedReader in = new BufferedReader(
                            new FileReader("students.txt"));
            PrintWriter out = new PrintWriter(
                            new BufferedWriter(
                                new FileWriter("studmail.txt")));
            String  line;
            while ((line = in.readLine()) != null) {
                StringTokenizer st = new StringTokenizer(line, ":");
                String firstName = st.nextToken();
                String lastName = st.nextToken();
                String securityNumber = st.nextToken();
                String email = lastName.substring(0, 1).toLowerCase() +
                                firstName.substring(0, 1).toLowerCase() +
                                securityNumber.substring(
                                    securityNumber.length() - 4) +
                                "@" + "ruc.dk";
                out.println(email);
            }
            out.flush();
            out.close();
        } catch (IOException e) { System.out.println(e); }
    }
}
```

(b) Med metoden `split` fra klassen `String`:

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

public class Emailer {
    public static void main(String[] args) {
        try {
            BufferedReader in = new BufferedReader(
                                    new FileReader("students.txt"));
            PrintWriter out = new PrintWriter(
                                    new BufferedWriter(
                                        new FileWriter("studmail.txt")));
            String  line;
            while ((line = in.readLine()) != null) {
                String[] part = line.split(":");
                String email = part[0].substring(0, 1).toLowerCase() +
                                part[1].substring(0, 1).toLowerCase() +
                                part[2].substring(part[2].length() - 4) +
                                "@ruc.dk";
                out.println(email);
            }
            out.flush();
            out.close();
        } catch (IOException e) { System.out.println(e); }
    }
}
```

(c) Med klassen `Scanner`:

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

public class Emailer {
    public static void main(String[] args) {
        try {
            Scanner in = new Scanner(new FileReader("students.txt"));
            in.useDelimiter(":|\\n");
            PrintWriter out = new PrintWriter(
                                new BufferedWriter(
                                    new FileWriter("studmail.txt")));
            while (in.hasNext()) {
                String firstName = in.next();
                String lastName = in.next();
                int securityNumber = in.nextInt();
                String email =
                    firstName.substring(0, 1).toLowerCase() +
                    lastName.substring(0, 1).toLowerCase() +
                    (securityNumber % 10000) +
                    "@ruc.dk";
                out.println(email);
            }
            out.flush();
            out.close();
        } catch (IOException e) { System.out.println(e); }
    }
}
```

(c) Med klassen `StreamTokenizer`:

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

public class Emailer {
    public static void main(String[] args) {
        try {
            BufferedReader in = new BufferedReader(
                            new FileReader("students.txt"));
            PrintWriter out = new PrintWriter(
                            new BufferedWriter(
                                new FileWriter("studmail.txt")));
            StreamTokenizer st = new StreamTokenizer(in);
            st.whitespaceChars(':', ':');
            while (st.nextToken() != st.TT_EOF) {
                String firstName = st.sval;
                st.nextToken();
                String lastName = st.sval;
                st.nextToken();
                int securityNumber = (int) st.nval;
                String email =
                    firstName.substring(0, 1).toLowerCase() +
                    lastName.substring(0, 1).toLowerCase() +
                    (securityNumber % 10000) +
                    "@ruc.dk";
                out.println(email);
            }
            out.flush();
            out.close();
        } catch (IOException e) { System.out.println(e); }
    }
}
```