

```
1 package hw2;
2 /*
3    Authors: Elizabeth Hillman, Camellia Bazargan, Vy
4    Nguyen, Jagjit Singh
5    Date: 10/01/22
6    Assignment: Scholarship - Control Flow
7    Problem Statement: Determine if a student is
8    eligible for a scholarship or for dean consideration
9    based on their age, where they live, their work
10   history, taxes, volunteering history, and income
11 */
12
13 import java.util.Scanner;
14
15 public class Scholarship {
16     //variables used to determine the students
17     eligibility
18     static int age = 0;
19     static boolean resident = false;
20     static boolean partTimeWorker = false;
21     static boolean paidStateTax = false;
22     static boolean volunteered = false;
23     static int houseHoldIncome = 0;
24
25     /**
26      * This method will call checkEligibility to
27      * determine the student's eligibility status
28      */
29     public static void main(String[] args) {
30         checkEligibility();
31     }
32
33     /**
34      * this method will be used to determine the users
35      * eligibility for the scholarship based on their input
36      * prints 0 if they aren't eligible, 1 if they are
37      * or for dean for consideration
38      */
39 }
```

```
32     */
33     public static void checkEligibility()
34     {
35         //scanner to get user info
36         Scanner sc = new Scanner(System.in);
37
38         //used to get the users age
39         System.out.println("Enter your age");
40         age = sc.nextInt();
41         //if they do not meet age requirements, they
will not be eligible and code will end
42         if (age < 18 || age > 24)
43         {
44             System.out.println("0");
45             System.exit(0);
46         }
47
48         //used to verify the user has lived in CA for
2 years
49         System.out.println("Have you lived in
california for last 2 years: Y/N");
50         resident = charToBool(sc.next().charAt(0));
51
52         //used to verify the users work history
53         System.out.println("have you worked part time
or full time for at least 6 months");
54         partTimeWorker = charToBool(sc.next().charAt(0
));
55
56         //used to verify the user's parents tax info
57         System.out.println("have your parents paid CA
state tax and lived in CA for 1 year");
58         paidStateTax = charToBool(sc.next().charAt(0
));
59
60         //used to verify the users volunteering
history
61         System.out.println("have you volunteered for a
```

```

61  public cause in CA and have proof");
62      volunteered = charToBool(sc.next().charAt(0));
63
64      //checks if the user meets at least one CA
residency conditions
65      if (resident || partTimeWorker || paidStateTax
        || volunteered) {
66          System.out.println("1");
67          System.exit(0);
68      }
69      //used to verify the users income
70      System.out.println("Enter your HouseHold
Income");
71      houseHoldIncome = sc.nextInt();
72
73      //if they do not meet residency conditions but
meet requirements then they will be up for dean
consideration
74      if (houseHoldIncome < 5000) {
75          System.out.println("Dean for consideration
");
76          System.exit(0);
77      }
78      //if they don't meet residency conditions and
also have too high of an income they will not be
eligible
79      else
80      {
81          System.out.println("0");
82      }
83  }
84
85  /**
86   * this method will alter the users text input to
   be saved as a boolean value
87   * @param c - user input (y or n)
88   * @return - boolean value based on input or an
   exception if the user input is incorrect

```

```
89      */
90      public static boolean charToBool(char c) {
91          return switch (c) {
92              case 'y' -> true;
93              case 'n' -> false;
94              default -> throw new
IllegalArgumentException("Must be either 'y' or 'n'."
);
95          };
96      }
97 }
98
```