

```

1  import java.util.ArrayList;
2
3  public class University {
4      ArrayList<Assistant> assistantArrayList = new ArrayList<Assistant>(); //Create a
      new list to store assistants
5      ArrayList<Room> roomArrayList = new ArrayList<Room>(); //Create a new list to store
      rooms
6
7      //--- Assistant methods ---
8      public void inputAssistant(String inputName, String inputEmail) { //Used for when
      you want to input a new assistant
9          if(inputName != "" && inputName != null) { //Check if the name is non empty
10             if(checkEmailPresence(inputEmail) == false) { //Check if the email could be
                used
11                 addNewAssistant(inputName, inputEmail); //Add the assistant using the
                    inputs
12             } else {
13                 System.out.println("That email is not valid or already in use");
14             }
15         } else {
16             System.out.println("The name is not valid");
17         }
18     }
19
20     public boolean checkEmailPresence(String emailToCheck) { //Checks whether an email
      would be present in the assistantArrayList
21         if(emailToCheck != "" && emailToCheck != null) { //Check whether you could make
            a valid email
22             String newEmail = Assistant.createEmail(emailToCheck); //Create a string
                for the email to be created
23             for(int index = 0; index < assistantArrayList.size(); index++) { //For
                every assistant in the list
24                 if (newEmail.equals(assistantArrayList.get(index).getEmail())) {
25                     //Check if the email is already present
26                     return true; //Return true if the email cannot be used
27                 }
28             } else {
29                 System.out.println("The email is not in the correct format");
30             }
31             return false; //Return false if the email can be used
32         }
33
34         public void addNewAssistant(String newName, String newEmail) { //Add a new user
            based on two inputted strings
35             Assistant newAssistant = new Assistant(newName,
                Assistant.createEmail(newEmail)); //Create a new assistant
36             assistantArrayList.add(newAssistant); //Add it to the list
37         }
38
39         //--- Room methods ---
40         public void inputRoom(String inputCode, int inputCapacity) { //Adds a room to the
            roomArrayList
41             if(inputCapacity > 0){ //If the rooms capacity is greater than 0
42                 if(checkCode(inputCode) == false){ //If the code is not present in the list
                    and valid
43                     Room newRoom = new Room(inputCode, inputCapacity); //Create a room with
                        the inputs
44                     roomArrayList.add(newRoom); //Add the room
45                 } else {
46                     System.out.println("The inputted code is not valid or already in use");
47                 }
48             } else {
49                 System.out.println("The inputted capacity is less than 0");
50             }
51         }
52
53         public boolean checkCode(String codeToCheck) { //Checks if a code is valid, and if
            it is present in roomArrayList

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54         if(codeToCheck != "" && codeToCheck != null) {
55             for(int index = 0; index < roomArrayList.size(); index++) {
56                 if(roomArrayList.get(index).getCode().equals(codeToCheck)) {
57                     return true;
58                 }
59             }
60         } else {
61             System.out.println("The inputted code is invalid");
62         }
63         return false; //Return false if the code can be used
64     }
65
66     public ArrayList<Assistant> getAssistants(){return assistantArrayList;} //Returns
the assistants arrayList
67     public ArrayList<Room> getRooms(){return roomArrayList;} //Returns the rooms
arrayList
68
69     public void setAssistants(String[][] namesAndEmails){ //Sets the assistant list
based on a 2d string array
70         for(int index = 0; index < namesAndEmails.length; index++) { //For every name
in the array
71             this.inputAssistant(namesAndEmails[index][0],namesAndEmails[index][1]);
//Add its name and respective email to the arrayList
72         }
73     }
74
75     public void setRooms(String[] roomCodes, int[] roomCaps){ //Sets the room list
based on a string array and an integer array
76         if (roomCodes.length == roomCaps.length){
77             for(int index = 0; index < roomCodes.length; index++) { //For every code in
the array (This is only for the test)
78                 this.inputRoom(roomCodes[index], roomCaps[index]);
79             }
80         } else {
81             System.out.println("The number of room codes and the number of room
capacities is not equal, please check your inputs");
82         }
83     }
84 }

```