# Computer Programming I (LAB - 7)

| Program Name | Description  |
|--------------|--|
| BSLab7a.java | Write a Java program which generates <b>ten</b> unique numbers between <b>1 and 20 (inclusive)</b> and store them in a list. Before storing the number in the list, the program should check whether the number is already in the list. If the number is in the list, the program should generate a new number and count how many times it needs to generate a new number. |

#### Output

List: 3 17 9 15 3 8 5 14 12 10

# of Conflicts: 5

NOTE: The # of conflicts is the number of times the program regenerated a number

| Program Name | Description   |
|--------------|---|
| BSLab7b.java | Write a Java program which asks the user to enter a number between <b>1</b> and <b>9</b> . The program should validate the input to check if it is a number and if it is a valid number (within the range). |
|              | If the input is not a number, the program should display a message saying: "Invalid input, please try again !!!"  |
|              | If the input is out of the range, the program should display a message saying:  "Invalid number, please try again !!!"  |
|              | The program should keep asking for a number if the input is incorrect.  |

### Output

Please, enter a number between 1 and 9: A

Invalid input, please try again !!!

Please, enter a number between 1 and 9: 12

Invalid number, please try again !!!

Please, enter a number between 1 and 9: 9

NOTE: The output above is just an example of what the program should do.

# Computer Programming I (LAB - 7)

| Program Name | Description   |
|--------------|---|
| BSLab7c.java | Write a Java program which asks the user to enter <b>five</b> numbers.  The program should prevent the user from entering the same number more than once. It should also print to the screen the numbers already entered by the user. |

### Output

```
List:
Please, enter a number: 27
List: 27
Please, enter a number: 9
List: 27 9
Please, enter a number: 27
Number is already in the list !!! Try again !!!
List: 27 9
Please, enter a number: 12
List: 27 9
Please, enter a number: 12
List: 27 9 12
Please, enter a number: 2
List: 27 9 12 2
Please, enter a number: 8
List: 27 9 12 2
NOTE: The output above is just an example of what the program should do.
```

## Computer Programming I (LAB - 7)

| Program Name | Description  |
|--------------|--|
| BSLab7d.java | <ul> <li>Guessing game of numbers between 1 and 10 (inclusive)</li> <li>Write a Java program which:</li> <li>Displays a random number in the range above</li> <li>Asks the user if the next number will be (H) higher or (L)lower than the number displayed</li> <li>Generates a new random number (next)</li> <li>If the guess is right, 1 point is added to the score</li> <li>If the guess is wrong, 1 point is taken from the score</li> <li>If the guess is the same, no point is added or taken</li> <li>User start with 10 points</li> <li>Game ends when score is zero point</li> <li>Game continues while score is greater than zero</li> </ul> |

#### Output

```
Your score is: 10 points
Current number is: 3
Will the next number be <H>igher or <L>ower ? H
Next number is: 7 ( Win )
Your score is: 11 points
Current number is: 7
Will the next number be <H>igher or <L>ower ? L
Next number is: 7 ( Draw )
Your score is: 11 points
Current number is: 7
Will the next number be <H>igher or <L>ower ? L
Next number is: 9 ( Lose )
Your score is: 10 points
Current number is: 9
Will the next number be higher or lower ?
... game ends when score is zero
NOTE: The output above is just an example of what the program should do.
```