

## **SWE 206**

### **Lab01 Software Development Processes**

#### **Section 53**

#### **Semester 232**

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As a group of 2, solve the following and show your work on the different software development processes (Requirement Specification, Design, Implementation, Testing).

### **Requirement**

- Ability to read a text file containing a list of students.
- Ability to take input throw command line
- Ability to take input for the number of groups needed or the maximum number of students in a group.
- Ability to randomly generate groups of students based on the input provided.
- Ability to output the groups in a user-friendly format.
- Ability to run on a computer configured to Python applications.
- Ability to take input for the number of students in a group.
- Ability to include all students in the groups, without leaving any student out.
- Ability to handle the case where the number of students is not divisible by the number of groups.
- Ability to check the groups formed and if any group has more students than the maximum number of students in a group, it should redistribute the students to keep the group size within the maximum limit.

# Design and Implementation are in the .java file

## Testing

```
Enter '1' for group with specific number of groups or '2' for group with maximum member numbers: 1
Enter number of groups that you want: 5
Group 1 contains: Dawwd, Hamad, Naif
Group 2 contains: Ahmad, Jasser, Sami, Yusuf
Group 3 contains: Gamal, Kamal, Tala
Group 4 contains: Faisal, Mohammed, Qassim
Group 5 contains: Bader, Ismail, Rabeh
```

```
Enter '1' for group with specific number of groups or '2' for group with maximum member numbers: 1
Enter number of groups that you want: 7
Group 1 contains: Faisal, Naif, Tala
Group 2 contains: Dawwd, Kamal, Yusuf
Group 3 contains: Hamad, Sami
Group 4 contains: Ahmad, Jasser
Group 5 contains: Ismail, Qassim
Group 6 contains: Gamal, Mohammed
Group 7 contains: Bader, Rabeh
```

```
Enter '1' for group with specific number of groups or '2' for group with maximum member numbers: 2
Enter maximum member numbers that you want: 8
Group 1 contains: Ahmad, Faisal, Gamal, Jasser, Mohammed, Qassim, Sami, Yusuf
Group 2 contains: Bader, Dawwd, Hamad, Ismail, Kamal, Naif, Rabeh, Tala
```

```
Enter '1' for group with specific number of groups or '2' for group with maximum member numbers: 3
3 is not one of the choices
Enter '1' for group with specific number of groups or '2' for group with maximum member numbers: 2
Enter maximum member numbers that you want: 3
Group 1 contains: Ahmad, Qassim, Rabeh
Group 2 contains: Gamal, Kamal
Group 3 contains: Faisal, Mohammed, Sami
Group 4 contains: Bader, Ismail
Group 5 contains: Hamad, Naif, Tala
Group 6 contains: Dawwd, Jasser, Yusuf
```

```
Enter '1' for group with specific number of groups or '2' for group with maximum member numbers: 2
Enter maximum member numbers that you want: 1
Group 1 contains: Dawwd
Group 2 contains: Qassim
Group 3 contains: Hamad
Group 4 contains: Mohammed
Group 5 contains: Rabeh
Group 6 contains: Naif
Group 7 contains: Sami
Group 8 contains: Jasser
Group 9 contains: Gamal
Group 10 contains: Faisal
Group 11 contains: Kamal
Group 12 contains: Ismail
Group 13 contains: Bader
Group 14 contains: Yusuf
Group 15 contains: Tala
Group 16 contains: Ahmad
```