

CENG431 – Building Software Systems

Midterm 3 Project

In this homework you are expected to implement an “**Outfit Rating Platform**” with a GUI. You should fulfill the concepts of:

- SOLID Principles
- MVC Design Patterns
- Swing
- Observer Design Pattern

In this platform, the users will rate and comment on different outfits and create collections up to their interest or for their upcoming events. For example, a woman about to marry could create a collection namely “My Wedding” which consists of a wedding dress, a wedding shoe, a bride crown etc. Also, the users will see other users’ collections to see different products or combines.

The GUI of the **Outfit Rating Platform** allows users:

- To login.
- To create a collection of outfits
- To add/remove outfit from the collection
- To like/dislike the outfit
- To comment the outfits
- To follow/unfollow other users
- To view the followed users’ collections

On this platform, the outfit’s information is stored in a JSON file with a product id, a brand name, a clothing type, for which occasion the outfit is suitable i.e. party, elegant, casual, sporty etc., for which gender, size options, color, number of likes, number of dislikes and comments. All this information belong to outfits will be displayed on this platform.

There will be also a statistics page which will show the followings:

- The most liked outfit
- The most disliked outfit
- The most followed user

When a user performs a like/dislike or commenting operation the JSON file should be updated. Furthermore, if any of these operations affect any of the user’s collections or the statistics page, these changes should be applied on these as well.

The user information is stored in an XML file with user name, password, following users, follower users and collection content. The collection will have a name and the product ids which are added to the corresponding collection. When a user performs follow/unfollow operation, or an addition/removal operation to one of his/her collections, the XML file should be updated.

You should create a JSON file which consists of at least 15 products and an XML file which consists of at least 5 users including the instructor and the teaching assistants of this course. Both the JSON and the XML files should be loaded first when the program starts.

NOTE: Please try your best to make your software user friendly and make sure it is expressive enough to the user.

Usability Testing: If you have enough time you can create a check list of every functionality that your software has and ask your friends to perform each functionality without giving them any hint. If your friends succeed in every functionality, then your software's usability is quite high.

Project Submission Rules

1. Cheating is not allowed. If any cheating has been detected, they will be graded with 0 and there will be no further discussion on this.
2. You are expected to submit your project in groups. Therefore, only one of you will be sufficient to submit your project.
3. Make sure you export your project as Eclipse projects. You can use other IDEs as well, however, you must test if it supported by Eclipse.
4. If you are using an external library, make sure that ".jar" library is in your project after you exported it. Unfortunately, from our previous experiences we have encountered project submissions that uses libraries from their "**Desktop**".
5. Please submit your project through Cloud-LMS (<https://cloud-lms.iyte.edu.tr/>).
6. Please export your Java Project as the given format with your assigned.

Example:

G02_CENG431_Midterm3.zip. (Your group IDs will be announced on Microsoft Teams).

7. Please be informed that your submissions may be anonymously used in software testing and maintenance research studies. Your names and student IDs will be replaced with non-identifying strings. If you do not want your submissions to be used in research studies, please inform the instructor (Dr. Tuglular) via e-mail.