



Umm Al-Qura University
Computer & Info. Systems College
Computer Science department

Object Oriented Programming
2nd Semester 2023
Course Project

BOOK LIBRARY

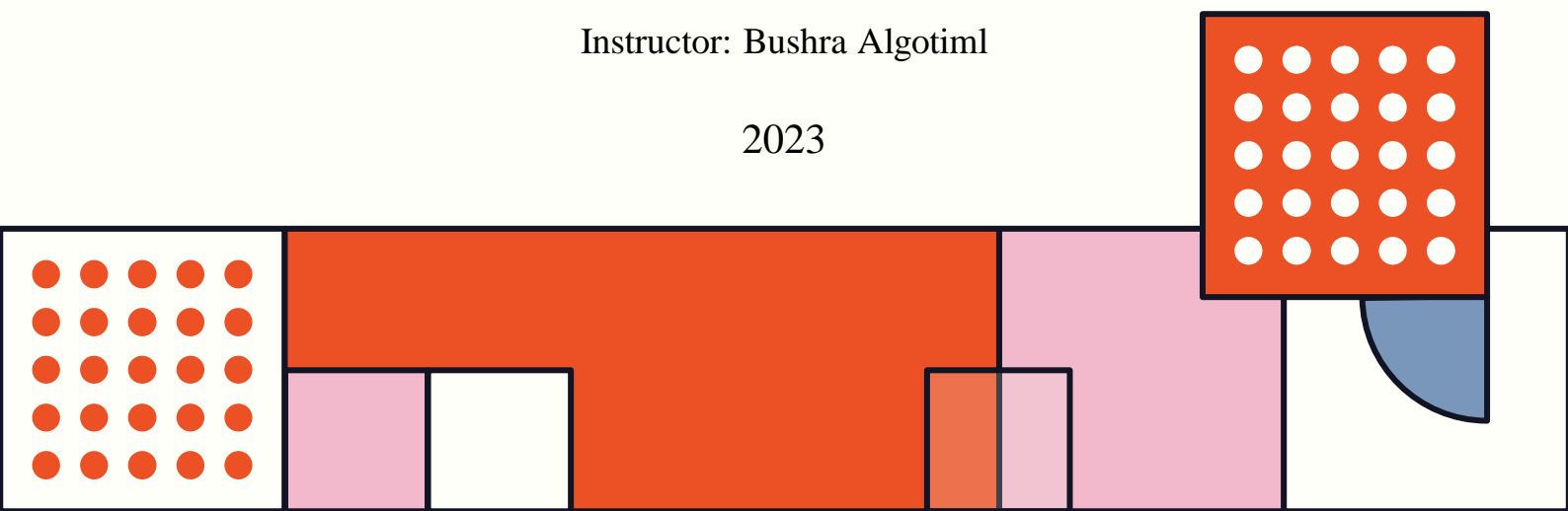
Project Team

Dalia Zamzami	ID 443000867
wiaam shiba	ID 443000013
janaa walaa	ID 440000870
linah mohammed	ID 441010061

Object Oriented Programming Course

Instructor: Bushra Algotiml

2023





Book library

PROJECT IDEA


This project helps any reader and researcher, because it organizes the process of managing libraries through some of the services it provides, such as searching for books, writing reviews, and some recommended books. These services contribute to reducing the time and effort spent

The Target Group

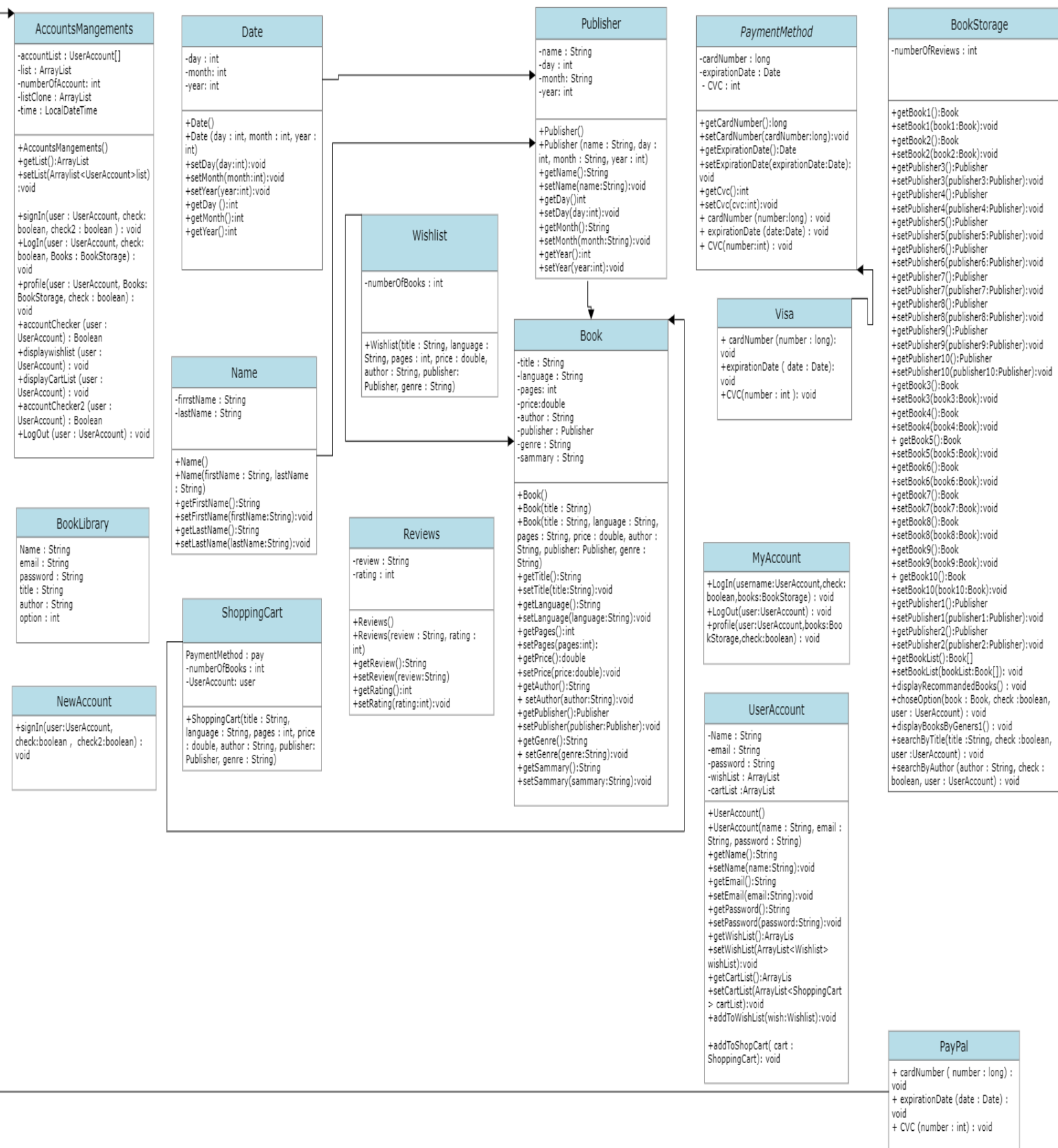
Readers, researchers

Aim of the project:

Solving the most common problems in library management, such as searching for books, searching for and writing reviews, and suggesting some books for those who want to read and do not know where to start



Project UML





Project Functionalities

- 1 - The ability to create an account in the library
- 2- The ability to search for books by the name of the author or the title of the book
- 3- Possibility to purchase books
- 4- Writing book reviews and presenting them
- 5- The possibility of placing books in the wish list



Project workflow - Create a new account

run:

- 1- Recommended books
- 2- genres
- 3- search for a book
- 4- myAccount
- 5- Quite

When the user launches the application, this window will be displayed which displays the main list of services (In order to choose from these options, you must choose the required number, then press Enter)

4

Enter your name:

nour

Enter your email:

nnn@hotmail.com


Make a new password:

n14n15n16

You've made a new account

- 1- Recommended books
- 2- genres
- 3- search for a book
- 4- myAccount
- 5- Quite

Choose myAccount to create a new account, and this window will appear telling us to write the name, then the email, then write a new password, Account created successfully



recommended book

```
1
1- Journey to the center of the earth
2- Coraline
3- Space Atlas
4- Grokking Algorithms
5- Deep Work
6- Emotional Intelligence
7- Atomic Habits
8- The Mountain Is You
9- Rich Dad Poor Dad
10- The Midnight Library
Enter the option number of book that you want:
```

After entering the Recommended Books service, we see this message asking us to choose one of the books

```
1
Book{title=Journey to the center of the earth, language=English, pages=240, price=22.5, author=Jules Verne,
1- Read discription of the book
2- Rate and Write a review
3- display reviews
4- add the book to shop cart
5- add to wishlist
6- Quite
publisher=Publisher{name=Dover Publication, day=4, month=March, year=2005}, genre=Science Fiction}
```

Book information

After selecting a book, we see the book's information in detail, from the title to the number of pages

Read discription of the book

```
Book{title=Journey to the center of the earth, language=English, pages=240, price=22.5, author=Jules Verne,
1- Read discription of the book
2- Rate and Write a review
3- display reviews
4- add the book to shop cart
5- add to wishlist
6- Quite
1
an adventure novel
1- Read discription of the book
2- Rate and Write a review
3- display reviews
4- add the book to shop cart
5- add to wishlist
6- Quite
```

Description of the book

After we chose the book and chose the book description reading service, the description appeared to us in a simplified form



Rate and Write a review

```
1- Read discription of the book
2- Rate and Write a review
3- display reviews
4- add the book to shop cart
5- add to wishlist
6- Quite
2
Review text:
lina
Rating from 5:
3
Your review is added
```

After we chose the review service, a window appeared asking us to write the review, and these are the results after we wrote it



display reviews

```
Your review is added
1- Read discription of the book
2- Rate and Write a review
3- display reviews
4- add the book to shop cart
5- add to wishlist
6- Quite
3
1 reviews
Reviews{review=lina, rating=3}
```


After we stored the review in the past, now we want to display it



add the book to shop cart

```
1- Read discription of the book
2- Rate and Write a review
3- display reviews
4- add the book to shop cart
5- add to wishlist
6- Quite
4
Added to your cart
```

You can put the books in the cart and buy them later





add to wishlist

Added to your wishlist

- 1- Read discription of the book
- 2- Rate and Write a review
- 3- display reviews
- 4- add the book to shop cart
- 5- add to wishlist
- 6- Quite

After we asked to add the book to the wishlist, this message appeared



search for a book

3

Search by:

- 1- Title
- 2- Author

After we entered the service, this window appeared to us, which gave us the option of whether we want to search for the book by the title of the book or the name of the author

Search by:

- 1- Title
- 2- Author

1
Title of book:
Coraline
Book{title=Coraline, language=English, pages=172, price=30.0
1- Read discription of the book
2- Rate and Write a review
3- display reviews
4- add the book to shop cart
5- add to wishlist
6- Quite

results of the search for the book





```
1- Read discription of the book
2- Rate and Write a review
3- display reviews
4- add the book to shop cart
5- add to wishlist
6- Quite
6
1- Recommanded books
2- genres
3- search for a book
4- myAccount
5- Quite
```

Quite

If you want to go back to the main menu



Project workflow

```
run:
1- Recommanded books
2- genres
3- search for a book
4- myAccount
5- Quite
4
Enter your name:
lina
Enter your email:
mohammed
Make a new password:
309080
You've made a new account
1- Recommanded books
2- genres
3- search for a book
4- myAccount
5- Quite
1
1- Journey to the center of the earth
2- Coraline
3- Space Atlas
4- Grokking Algorithms
5- Deep Work
6- Emotional Intelligence
7- Atomic Habits
8- The Mountain Is You
9- Rich Dad Poor Dad
10- The Midnight Library
Enter the option number of book that you want:
6
```





Project workflow

Book(title=Emotional Intelligence, language=English, pages=368, price=45.0, author= Daniel Goleman, publisher=Publisher(name=Bloomsbury Publishing PLC, day=13, month=June , year=1996), genre=Psychiatry)

1- Read discription of the book

2- Rate and Write a review

3- display reviews

4- add the book to shop cart

5- add to wishlist

6- Quite

1

Why It Can Matter More Than IQ

1- Read discription of the book

2- Rate and Write a review

3- display reviews

4- add the book to shop cart

5- add to wishlist

6- Quite

2

Review text:

good

Rating from 5:

3

Your review is added

1- Read discription of the book

2- Rate and Write a review

3- display reviews

4- add the book to shop cart

5- add to wishlist

6- Quite

3

1 reviews

Reviews(review=good, rating=3)

1- Read discription of the book

2- Rate and Write a review

3- display reviews

4- add the book to shop cart

5- add to wishlist

6- Quite





Project workflow

4
Added to your cart
1- Read discription of the book
2- Rate and Write a review
3- display reviews
4- add the book to shop cart
5- add to wishlist
6- Quite
5
1- Read discription of the book
2- Rate and Write a review
3- display reviews
4- add the book to shop cart
5- add to wishlist
6- Quite
6
1- Recommanded books
2- genres
3- search for a book
4- myAccount
5- Quite
2
1- Science Fiction
2- Horror
3- Space
4- Programming
5- Economics
6- Psychiatry
7- Motivational Self-Help
8- Lifestyle
9- Business
10- Literary Fiction
Enter the option number of book that you want:
6
Book{title=Emotional Intelligence, language=English, pages=368, price=45.0, author= Daniel Goleman, publisher=Publisher{name=Bloomsbury Publishing PLC, day=13, month=June , year=1996}, genre=Psychiatry}
1- Read discription of the book
2- Rate and Write a review
3- display reviews
4- add the book to shop cart
5- add to wishlist
6- Quite
6
1- Recommanded books
2- genres
3- search for a book
4- myAccount
5- Quite
3
Search by:
1- Title
2- Author
1
Title of book:
Coraline
Book{title=Coraline, language=English, pages=172, price=30.0, author=Neil Gaiman, publisher=Publisher{name=HarperCollinsPublishers, day=31, month=July, year=2002}, genre=Horror}
1- Read discription of the book
2- Rate and Write a review





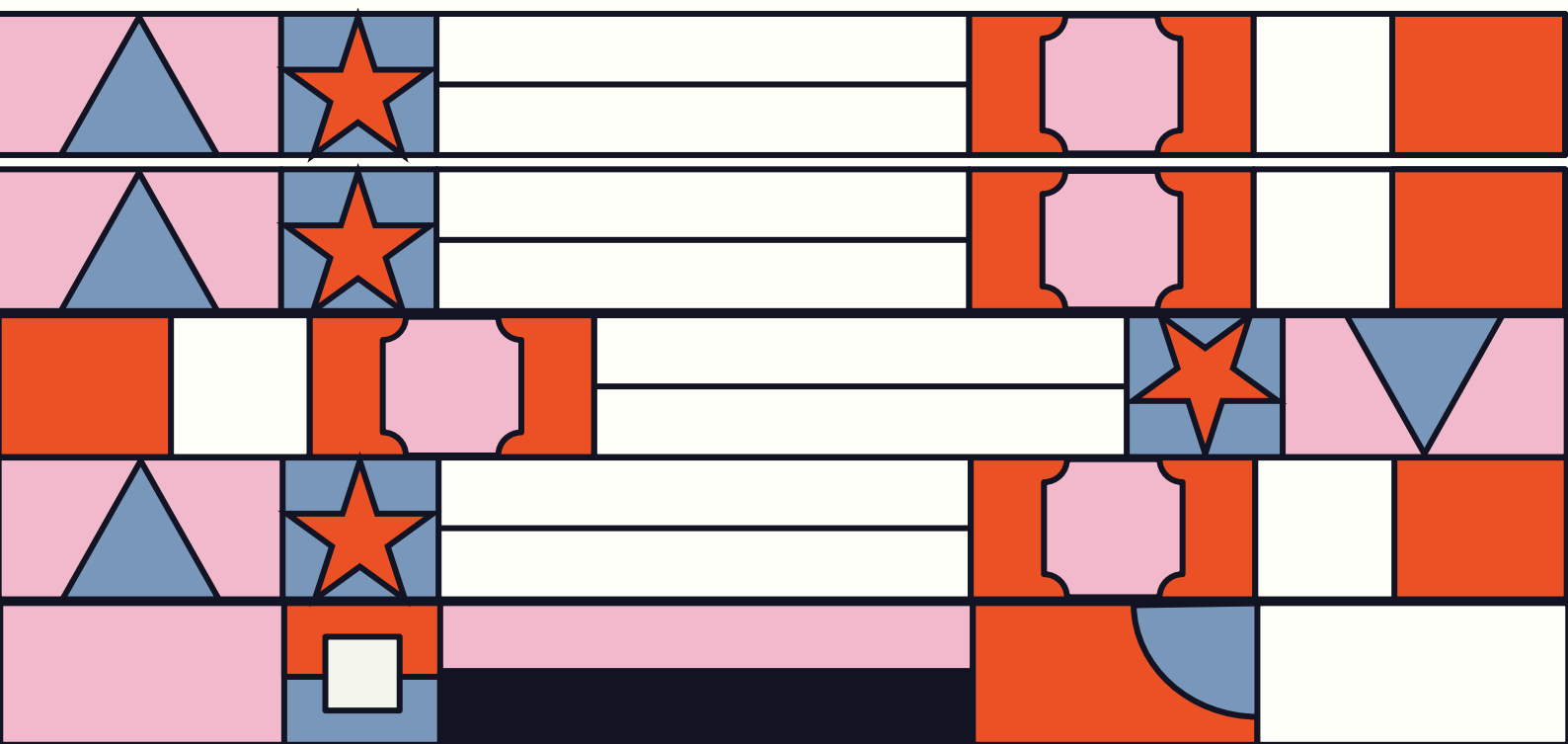
Project workflow

```
3- display reviews
4- add the book to shop cart
5- add to wishlist
6- Quite
6
1- Recommended books
2- genres
3- search for a book
4- myAccount
5- Quite
3
Search by:
1- Title
2- Author
2
Author of book:
Neil
Choose book:
Coraline
```



Extra Work

We implemented Exception Handling





The distribution of the work

Member	Task(s)	Time Spent (optional)
1-Dalia Zamzami	Coding and creating a uml diagram	
2-wiaam shiba	Coding and creating a uml diagram	
3-janaa wala	Coding and creating a uml diagram	
4-linah mohammed	Coding and creating a uml diagram	




What we learnt

What you have learned from the project?

In this project we have learned how to apply the concepts of object-oriented programming in projects

We learned that we can learn programming to create an integrated system that serves a specific party and solves existing problems

We learned how to formulate our ideas, arrange them, and convert them into a UML diagram and then into a working code





What is the advantages you gained from designing this project?

Thinking about how to solve library management problems and how to implement these solutions, and trying to adjust to reach the best continuously

Did you feel that teamwork was very helpful in programming the project?

Yes, it was useful. The project needs a lot of effort and a lot of time to think and face mistakes and fix them. Sometimes we needed to change some ideas. With the short semester and the great pressure in all subjects, of course, this helped us to complete it in a good time and with a wonderful result.

Are you satisfied with your application?

Yes, because it is a big project for us now, it took us a lot of time, and we are satisfied with the result. Of course, this does not mean that we hope to do better in upcoming software projects.

Did you feel you will be able to work in a large scale project later?

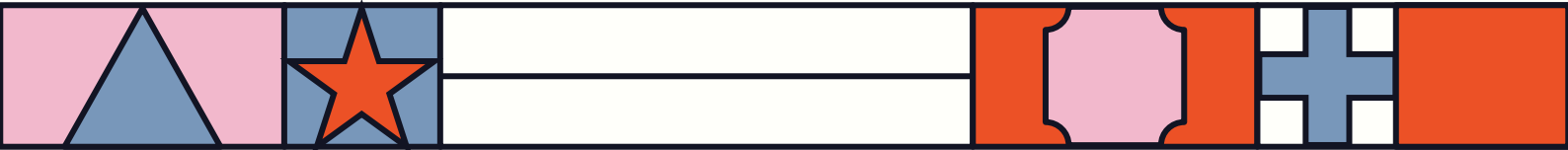
Yes, we will be able to do this because science has helped us a lot, it will help us in the future, and it will make us better





Project difficulties

We faced some problems in the implementation of the project at times in applying some new concepts to us, but in the end we overcame them



Project Declaration

We confirm that the work of this project was solely undertaken by ourselves and that no help was provided from other sources as those allowed. As well as we confirm that we completely aware of the violation consequences of the academic integrity.
Read and check the previous declaration .

Dalia Zamzami 443000867
wiaam shiba 443000013
janaa wala 440000870
linah mohammed 441010061

