

Assignment Cover Letter (Individual Work)

Student Name	Mitha Alshibli Alreem Alkaabi	Degree Program	Computer Science
Registration No.	202203336 202307361	Title of Assignment	Course Project
Course Code	CSBP316	Due Date	30 th April 2025
Course Name	Human Computer Interaction	Submission Date	30 th April 2025
Section	51		

The assignment should meet the below requirements.

- 1- Assignment is required to be submitted on clean paper or soft copy as per professor's instructions.
- 2- Soft copy assignment also requires the signed (hardcopy) submission of this form, which automatically validates the softcopy submission.
- 3- The above information is complete and legible.
- 4- Compiles pages are firmly attached.

Plagiarism/Cheating

The university seriously regards all forms of plagiarism, cheating and collision as academic offenses which may result in severe penalties and other possible penalties executed by the University.

Declaration of Originality

By signing this assignment, I understand, accept and consent to United Aran Emirates University (UAEU) terms and policies on plagiarism.

I hereby declare that this work represents my own effort, and that all text and code have been written by me and has not been submitted for the use of assessment in another course or class, except where this has been notified and accepted in advance.

Signature

Task 1: Topic Selection and Goal Setting

We choose “Designing interactive interfaces for e-learning apps”.

Our app will have a new creative interface for a learning app.

Functional requirements:

1. The system shall allow users to register and login.
2. The system shall display courses, deadlines, and any announcements.
3. The system shall allow users to upload files.
4. The user shall be able to view and interact with the course content.
5. The system shall allow users to submit assignments.
6. The system shall allow users to view their progress, grades and assignments.
7. The system shall allow users to participate in discussions in real time.
8. The system shall send notifications about new grades, assignments, and announcements.
9. The system shall include a calendar view.
10. The system shall include a note taking tool. E.g. built in apps like onenote, word, notability and goodnotes.
11. The system shall include an email viewing tool
12. The system shall include a task tracking tool. E.g. built in productivity tool like notion, to-do.
13. The system shall include social features. Adding and following classmates.
14. The system shall include a private chatting tool. E.g. built in WhatsApp groups.
15. The system shall include a groups and group assignments management page.
16. The system shall allow users to adjust the website accessibility settings.

Non-functional requirements:

1. The system shall have an easy to learn intuitive interface.
2. The systems shall have clear labels and navigation.
3. The system shall support touch, voice and keyboard navigation and screen reader.
4. The system shall load page in 1 second.
5. The system shall support 20,000 concurrent users with performance issues.

Goal setting:

1. Enhance the usability and accessibility of online learning interfaces.
2. Improve student engagement.
3. Streamline Student work.
4. Address pain points observed in Blackboard.
5. Make e-learning a complete e-learning ecosystem, by including all tools needed and used commonly by students.

Task 2: User Research

We conducted a survey on a sample of 5 students. We conduct a general (between black board and other learning apps) survey to understand student's needs, pain point and goals.

Link of the survey: [Interactive Interface Design for E-Learning Apps](#)

Persona 1: Aisha

- Age: 20
- Education: 3rd Year Undergraduate student, Information Technology
- Device Usage: Smartphone and Laptop
- Frequency: Daily
- Session Length: 15-30 minutes
- Motivators: Career advancement, personal growth, academic requirements.
- Learning Style: Interactive quizzes, progress tracking, structured courses.
- Pain points:
 - Lacks offline access and a good note-taking system.
 - Interface is not very customizable
 - Wants more engagement in course material
- Goals: Preparing for certifications, measuring success through assessments.
- Ideal App: Clean UI, offline mode, live discussion, diverse assessments.

Persona 2: Reem

- Age: 21
- Education: 3rd Year Undergraduate student, Science
- Device Usage: Smartphone & Tablet
- Frequency: Several times a week
- Session Length: 30-60 minutes
- Motivations: Academic requirements, skill acquisition
- Learning Style: Reading text, offline access, structured resources
- Pain points:
 - Excessive amount of material that is hard to go through
 - Wants more customizable study plans
 - Lacks advanced accessibility options
- Goals: Gaining real-world applicable knowledge
- Ideal App: Personalized, inclusive, accessible with progress insight.

Task 3: Competitive analysis

BlackBoard:

Strengths:

- Powerful data analytics for tracking student performance.
- Strong assessment and grading tool.
- Good integration with university administrative systems.

Weaknesses:

- Steeper learning curve for new users.
- Slower updates and innovation compared to competitors.
- Expensive licensing and maintenance costs.

(Tech & Learning, 2025)

Google Classroom

Strengths:

- Easy to use and fast learning.
- Free for schools and individuals.
- Integration with Google workspaces.

Weaknesses:

- Limited customization and personalization options.
- Basic grading and feedback tools compared to full LMS platforms.
- Less suitable for large scale university systems or complex curriculums.

(Technology Reviews, 2025)

Canvas LMS

Strengths:

- Modern and intuitive interface
- Strong third party integration such as zoom
- Open API for customization and extensions.

Weaknesses:

- High implementation costs for large institutions.
- Can be overwhelming with too many customization options.
- Occasional glitches with third party tool integration.

(K12 and Higher Education Technology, n.d.)

Moodle

Strengths:

- Open source and free.
- Highly customizable and flexible.
- Suitable for all education levels and corporate training.

Weaknesses:

- Interface can feel outdated if not heavily customized.
- Steeper learning curve for setup and administration.

(published, J. P. D., 2021)

Classes365

Strengths:

- All in one system LMS and student management, etc.
- Cloud based, easy access for administrators, teachers, students.
- Built in CRM and communication tools.

Weaknesses:

- Limited customization options compared to Moodle or canvas.
- Smaller brand recognition compared to big platforms such as Blackboard.

(classes365, 2025)

Deliverable: Summarize insights on what the team could incorporate, improve, or avoid in your design.

Summary:

Incorporate/improve:

- Clean, simple user experience.
- Integrations of popular tools such as Zoom, Google Drive, etc.
- Good analytics for tracking student progress in an easy-to-read way
- Allow users to add or remove features based on their need.

Avoid:

- Cluttered, outdated interface
- Inconsistent navigation patterns
- Excessive clicks to access key features
- Poor visual hierarchy

Task 4: design Ideation

- Hand-Drawn Sketches: scan image



Task 5: Prototyping design

Prototype Link:

<https://www.figma.com/proto/yURTUkNP1zFy41xdUV7eJ4/HCI-Project?node-id=202-866&t=CfB8OWk2z1ljM0lq-1&scaling=min-zoom&content-scaling=fixed&page-id=0%3A1&starting-point-node-id=202%3A866>

Design Link:

<https://www.figma.com/design/yURTUkNP1zFy41xdUV7eJ4/HCI-Project?node-id=0-1&t=JhPMg6dDnz2jn552-1>

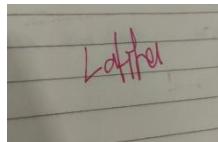
Screenshots are included in the appendix.

Task 6: Usability testing

Name: Latifa Alshibli

Mobile number: 0504246841

Signature:



Written Feedback:

What do you like most?

I really liked the clean and organized layout. The “Notes” section was especially helpful, and I found it easy to read and edit reflections.

What confused or frustrated you?

It took me some time to figure out where to post something or write a comment.

The message input isn't very visible, and I wasn't sure how to reply to specific users.

Any features you expected but didn't you see?

I was expecting a way to customize groups.

Suggestions for improvement:

Provide short tutorial for first time users.

Task 7: Iteration and Re-design

We refined the prototype by adding an accessibility settings page, a tutorial page, and course home page, an Assignment page, group management page, and a jahez program page.

- The new prototype allows users to customize the e-learning app to their preference using the accessibility settings page.
- The tutorial page will provide a quick visual demo to help them understand how to use the app and navigate it. (for Pre & Post Login)
- Course Home page added.
- Assignment Submission Page added.
- Groups Management page added.
- Link to a Jahez page from the dashboard announcement. With the week's schedule. To keep students updated.

View screenshots in the Appendix.

Task 8: Final Presentation and Documentation

Objective: Submit your final prototype and share your design process and findings.

Deliverable: A report or presentation covering your research, design process, prototype, and conclusions.

References

1. *classes365.com.* (2025). Afternic.com.
https://www.afternic.com/forsale/classes365.com?utm_source=TDFS_DASLNC&utm_medium=parkedpages&utm_campaign=x_corp_tdfs-daslnc_base&traffic_type=TDFS_DASLNC&traffic_id=daslnc&
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<https://www.gartner.com/reviews/market/higher-education-learning-management-systems/vendor/anthology/product/blackboard-learn/alternatives>
3. *K12 and Higher Education Technology News | EdTech Magazine.* (n.d.).
<https://edtechmagazine.com/>
4. published, J. P. D. (2021, September 30). *Moodle LMS review.* TechRadar.
<https://www.techradar.com/reviews/moodle-lms>
5. *Tech & Learning | Tools & Ideas to Transform Education.* (2025, April 25). Tech & Learning. <https://www.techlearning.com/>
6. *Technology Reviews | TechRadar.* (2025, April 26). TechRadar.
<https://www.techradar.com/reviews>

Appendix:

Task 5 Screenshots of the initial prototypes:

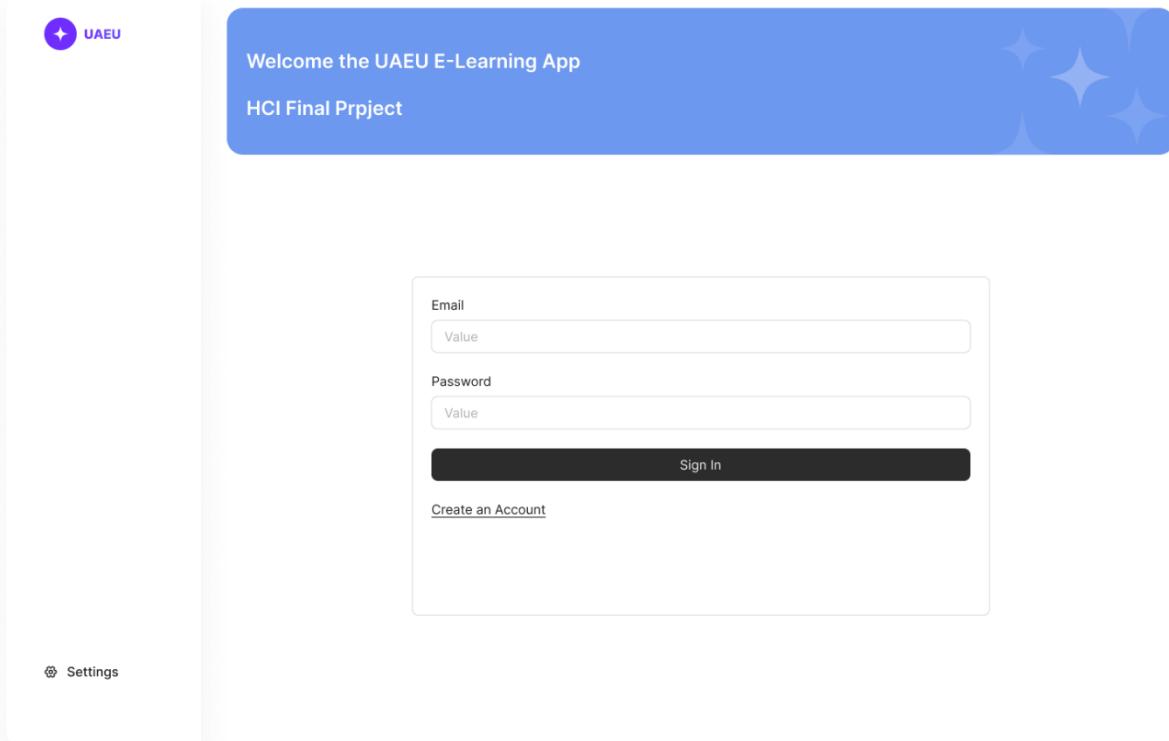


Figure 1 Login Page

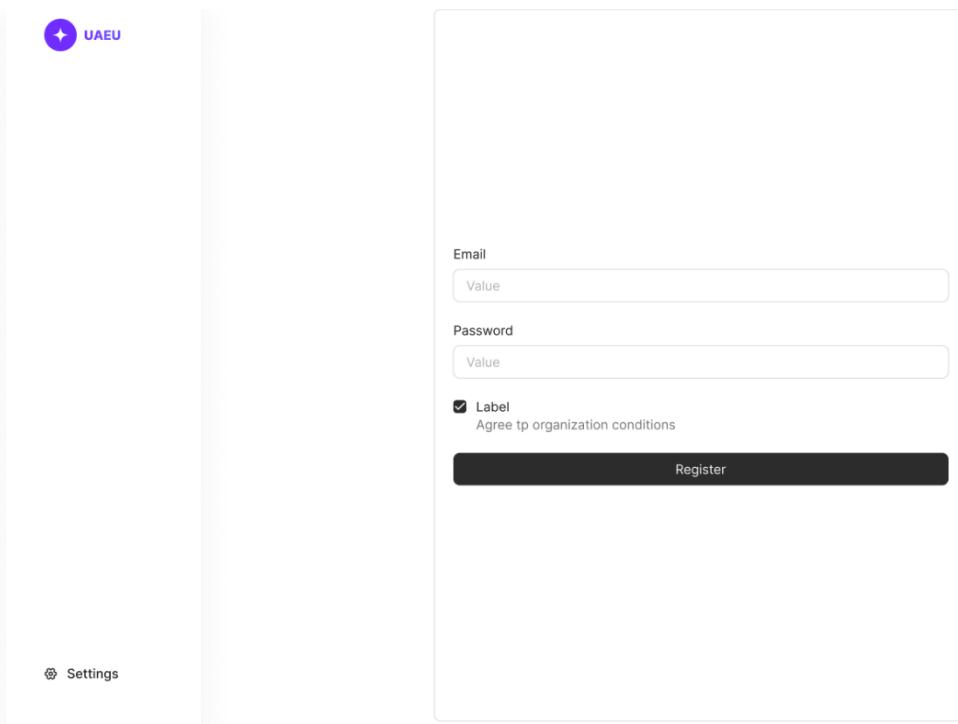


Figure 2 Registration Page to create account

The dashboard features a sidebar with navigation links for Overview, Groups, and other student resources. The main area displays course information, including assignments and projects due, and a list of previous courses taught by professors like Dr. Huda Amer and Dr. Salah Boustif.

Figure 3 Student Dashboard

The inbox page shows a list of incoming messages from various sources, including LinkedIn Job Alerts, Guardian Jobs, and Social media. A prominent red banner at the bottom right displays a welcome message for a new member, mentioning [Company] and [MembershipName].

Figure 4 Inbox page

UAEU

OVERVIEW

- Dashboard
- Inbox
- Calender
- Tasks
- Notes

GROUPS

- Final Project CSBP400
- Assignment 3 CSBP300
- Presentation ITBP320

Tutorial

Settings

Logout

April 2025

Today 2/27/2021 55°/40°

Club monthly meeting

- 8:30 ~ 9:00 AM Group meeting
- 8:30 ~ 9:00 AM Online class <https://zoom.us/j/1983475281>

TOMORROW 2/28/2021 55°/40°

8:30 ~ 9:00 AM Lab class

- 8:30 ~ 9:00 AM HW 2

MONDAY 3/1/2021 55°/40°

8:30 ~ 9:00 AM Online Quiz

TUESDAY 3/2/2021 55°/40°

8:30 ~ 9:00 AM Jabez event

WEDNESDAY 3/3/2021 55°/40°

8:30 ~ 9:00 AM Midterm exam

8:30 ~ 9:00 AM Calc III

THURSDAY 3/4/2021 55°/40°

Day Week Month Year

SUN	MON	TUE	WED	THU	FRI	SAT
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	1	2	3	4	5	6
7	8	9	10	11	12	13

8 AM

9:00 AM AI lecture

10 AM

10:00 AM HCl Lecture

11 AM

11:00 AM Club meeting

12 PM

12:00 PM Lab class

1 PM

1:00 PM Database Lecture

2 PM

2:00 PM Homework 1

3 PM

4 PM

4:00 PM Final

5 PM

8:00 AM Group meeting

9:00 AM Group meeting

9:00 AM test 1

9:00 AM Interview

10:00 AM Jahez event

11:00 AM Jahez event

12:00 PM Lab class

1:00 PM Introduction to Analysis Lecture

1:00 PM Calc III

2:00 PM Concept Design Review II

2:00 PM HW 2

4:00 PM Midterm

Figure 5 Calendar Page

 UAEU

OVERVIEW

-  Dashboard
-  Inbox
-  Calender
-  Tasks
-  Notes

GROUPS

-  Final Project
CSBP400
 - Project
 - Assignment
 - Check Emails & Messages
 - Complete Readings/Homework
 - Attend Classes & Take Notes
 - HW 1
 - Assignment 15
 - Lecture 14
-  Assignment 3
CSBP300
 - HW 7
 - Project
 - HW
 - Emails
 - Classes
-  Presentation
ITBP320
 - HW
 - Emails
 - Classes

SETTINGS

-  Settings
-  Logout

Figure 6 Tasks Page

My Notes

Personal

Reflection on the Month of June

31/12/2022 As the year comes to a ...

Reflection on the Month of June

21/06/2022 It's hard to believe that ...

My Favorite Memories from Childhood

11/04/2022 I was reminiscing about ...

Reflections on My First Year of College

08/04/2022 It's hard to believe that ...

My Experience with Meditation

24/03/2022 I've been trying to ...

Thoughts on the Pandemic

01/02/2021 It's hard to believe that ...

My Favorite Recipes

08/01/2021 I love cooking and trying ...

Reflection on the Month of June

Date: 21/06/2022

Folder: Personal

Paragraph: It's hard to believe that June is already over! Looking back on the month, there were a few highlights that stand out to me.

One of the best things that happened was getting promoted at work. I've been working really hard and it's great to see that effort recognized. It's also exciting to have more responsibility and the opportunity to contribute to the company in a bigger way. I'm looking forward to taking on new challenges and learning as much as I can in my new role.

I also had a great time on my vacation to Hawaii. The beaches were beautiful and I loved trying all of the different types of Hawaiian food. It was nice to relax and get away from the daily grind for a bit. I'm so grateful to have had the opportunity to take a trip like that.

Figure 7 Notetaking page

Notifications

Search your course here...

CSBP301 Assignment Due! 2 days ago

Your Exotic Veggie Platter is on the menu. Get excited!

CSBP301 Project Due! 6 days ago

CSBP300 Grade Announced 13 days ago

Thursday's Feast Awaits! 2 days ago

Meal Kit En Route!

Order Tweaked!

Fresh Flavors Unveiled!

Weekend Bonus!

Delivery Day!

Your Profile

Good Morning Dana!

Continue Your Journey And Achieve Your Goals!

Notifications

Discussions

Your Classmates

- Maitha Abdulla, Software Developer
- Dana Sultan, Software Developer
- Wadha Ahmed, Software Developer
- Rauda Saeed, Software Developer
- Aisha Nasser, Software Developer

Social Page

Figure 8 Notifications Page

Recently Active Discussion Boards

- How To Improve The Usability Of Elearning Apps? (CSBP101)
- Will AI Replace The Need For Human Interaction? (CSBP102)
- What Are The Biggest Challenges Making Technology More Intuitive And User-Friendly? (CSBP103)

Other Discussions

- The Future Of HCI? (CSBP104)
- How Can Designers Ensure That Interfaces Are Accessible For People With Disabilities? (CSBP105)
- How Should AI-Driven Interfaces Balance Personalization And Privacy? (CSBP106)
- Why Do Some Interfaces Feel More "Natural" Than Others? (CSBP107)
- What Makes A Well-Designed User Interface Vs. A Frustrating One? (CSBP108)
- How Do Smart Assistants Like Siri Or Alexa Change The Way People Interact With Technology? (CSBP109)

Your Profile

Good Morning Dana!
Continue Your Journey And Achieve Your Goals!

Notifications

Discussions

Your Classmates

- Malha Abdulla (Software Developer) [Follow](#)
- Dana Sultan (Software Developer) [Follow](#)
- Wadha Ahmed (Software Developer) [Follow](#)
- Rauda Saeed (Software Developer) [Follow](#)
- Aisha Nasser (Software Developer) [Follow](#)

Social Page

Figure 9 Discussions Page

Social Page

Popular **Trending** **Following**

Bruno Pham Hello, I really like your photo about... 2 mins ago 20

Bruno Pham Hello, I really like your photo about... 2 mins ago 20

Bruno Pham Hello, I really like your photo about... 2 mins ago 20

Bruno Pham Hello, I really like your photo about... 2 mins ago 20

Bruno Pham Hello, I really like your photo about... 2 mins ago 20

Bruno Pham Hello, I really like your photo about... 2 mins ago 20

Bruno Pham Hello, I really like your photo about... 2 mins ago 20

Bruno Pham Hello, I really like your photo about... 2 mins ago 20

Bruno Pham Hello, I really like your photo about... 2 mins ago 20

Thanh Pham 1 hour ago  + 20 125

Bruno 1 hour ago  + 20 125

Your Profile

Good Morning Dana!
Continue Your Journey And Achieve Your Goals!

Notifications

Discussions

Your Classmates

- Malha Abdulla (Software Developer) [Follow](#)
- Dana Sultan (Software Developer) [Follow](#)
- Wadha Ahmed (Software Developer) [Follow](#)
- Rauda Saeed (Software Developer) [Follow](#)
- Aisha Nasser (Software Developer) [Follow](#)

Social Page

Figure 10 Social Page

Task 7 Screenshots of the prototype:

Pages that have not been redesigned have been omitted as they are displayed above in the task 5 section of the appendix.

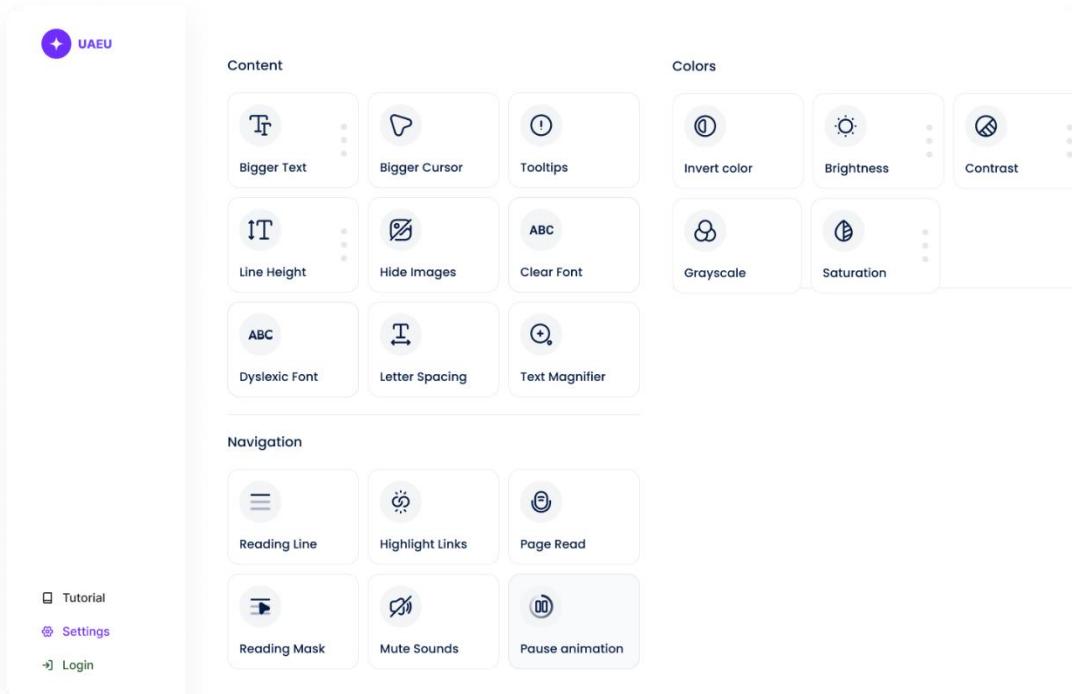


Figure 11 Accessibility Settings (pre-login)

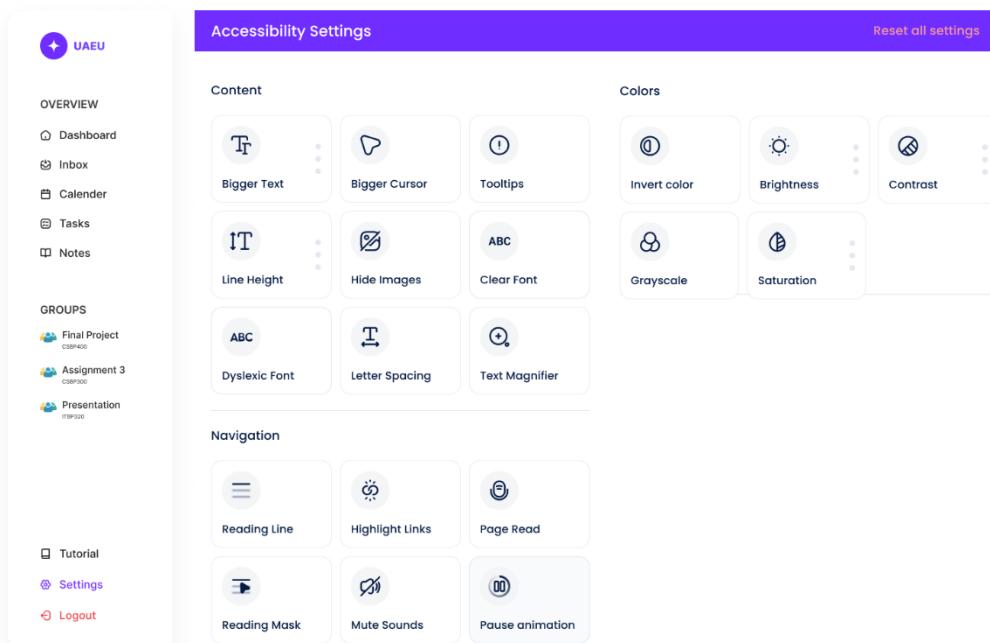


Figure 12 Accessibility Settings (post-login)

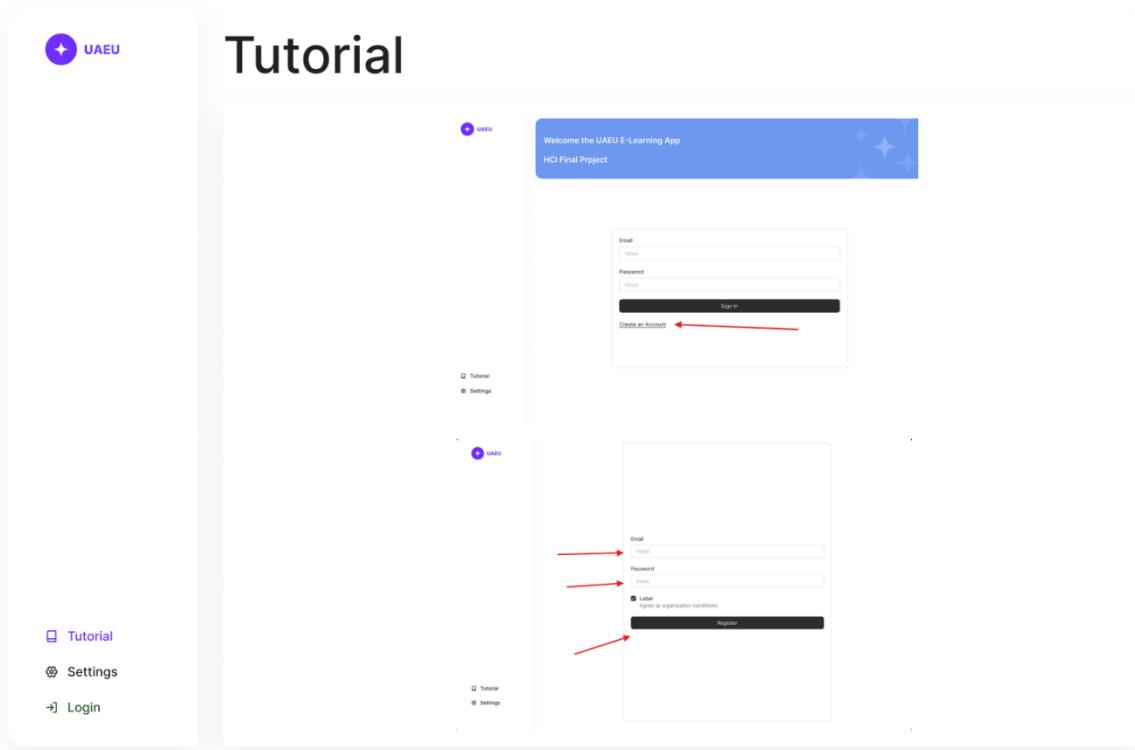


Figure 13 Tutorial Page (pre-login)

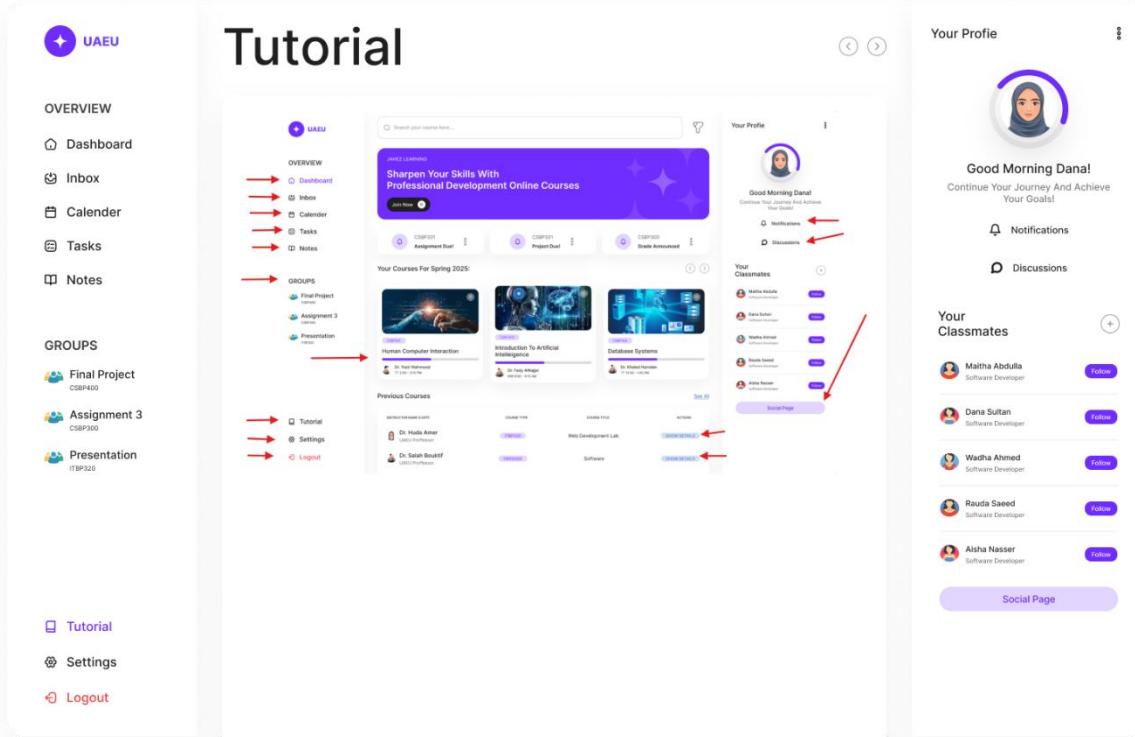


Figure 14 Tutorial Page (post-login)

Groups

- Human Computer Interaction Project Group**
Leader: Amna Sultan
Other Members: Fatima, Noura, Shahad, Sumaya.
- Artificial Intelligence Assignment 4 Group**
Leader: Mouza Sultan
Other Members: Fatima, Noura, Shahad, Sumaya.
- Database System Lab Presentation Group**
Leader: Salama Sultan
Other Members: Fatima, Noura, Shahad, Sumaya.

Figure 15 Groups Page

Jahez Modules Of The Week!

Day	Date	Topic	Presenter	Time	Link
Wednesday	30 Apr	Module 13: Ethical Behaviour	Yasir Mahmood	12:30 - 1:30 PM	Click Here
Thursday	1 May	Module 2: Job Search Journey Starts Here	Hisham Yaacob	2:00 - 3:00 PM	Click Here

Your Profie

Good Morning Dana!
Continue Your Journey And Achieve Your Goals!

[Notifications](#) [Discussions](#)

Your Classmates

- Malha Abdulla (Software Developer) [Follow](#)
- Dana Sultan (Software Developer) [Follow](#)
- Wadha Ahmed (Software Developer) [Follow](#)
- Raudha Saeed (Software Developer) [Follow](#)
- Aisha Nasser (Software Developer) [Follow](#)

[Social Page](#)

Figure 16 Jahez Announcements Page

OVERVIEW

- Dashboard
- Inbox
- Calender
- Tasks
- Notes

GROUPS

- Final Project CSBP400
- Assignment 3 CSBP300
- Presentation ITBP320

Resources

- Lecture Slides
- Additional Reading
- Lecture Slides

Assignments & Tasks

NAME	MARKS	DUEDATE	ACTIONS
Homework 2 LN2	30	3/4/2025	SHOW DETAILS
Homework 1 LN1	30	1/4/2025	SHOW DETAILS

User Settings

- Tutorial
- Settings
- [Logout](#)

Project 1 Assignment Due

Figure 17 Course Page

OVERVIEW

- Dashboard
- Inbox
- Calender
- Tasks
- Notes

GROUPS

- Final Project CSBP400
- Assignment 3 CSBP300
- Presentation ITBP320

Assignment

Name: Assignment 1

Title: LN1 Prototyping Design

Description:

Your assignment is to design a touchscreen interface for an Automatic Teller Machine (ATM) geared towards kids aged 10-15 whose parents have opened a savings account for them. These ATMs will be located in public places, such as at malls. They can be used to encourage kids to save money.

Upload File

Drag and drop files, or [Browse](#)

Upload files in Text, Word, PDF.

Figure 18 Assignment Submission Page