[Aafaq]

Platform for Finding Cooperative Internships and Training Courses

Members:

Name	ID	Email
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Wed Ahmed Badahdah	445002329	s445002329@uqu.edu.sa

Meeting times:

Name of group member	Date and Time
Lames-Wed-Walaa	12/12/2024	7pm-9pm
Lames-Walaa- Wed	14/12/2024	4pm-6pm

Individual tasks:

Lames: Created survey for user interviews, stakeholders, business requirements and edited submission.

Walaa: Brief description of project idea and type of software.

Wed: Who is the target user?

Chapter 1: Software Business requirements

Software Main Idea- [Aafaq] Part one:

Type of software:

1- Interactive transaction system

Brief description:

A system that brings together platforms that offer courses (such as Coursera, Udemy) with companies that offer Cooperative Training, and offers them to students based on their interests and experiences. They will be linked together in this system to help them get the training they need and organize the application process. It aims to facilitate communication between companies and universities with students and new graduates, which helps the company in choosing the right students as well as facilitating the selection of students for the right training.

What problem does it solve?

It solves a problem that many students face during their university career, and that is the search for internships and training programs. Students and recent graduates often find it difficult to find suitable internship opportunities or professional development courses that align with their needs and skills, and our idea aims to simplify the application process and integrate multiple platforms that are used to find these programs into one platform, and to connect students with training and professional development opportunities. Our platform would help students or recent graduates organize all their applications in one place and make applying easier by having a standard application form that can be used for most applications.

This platform will also help students strengthen their applications for training programs and internships as it will be in partnership with many education platforms that offer courses, and help students to know about free training programs and scholarships faster.

Business requirements:

The system will help students and companies by:

- Providing a platform that gathers training programs in one place.
- Simplifies the process of internship applications.
- Facilitates contact between student and company.

Stakeholders:

- **Students**
- **Companies that offer training programs**
- **Universities**

Who is the target user?

1- University Students:

• Those seeking internship opportunities to enhance their practical skills.

• Individuals interested in developing their abilities through specialized educational courses.

• Students required to complete professional training as part of their academic curriculum.

2- Recent Graduates:

• Those aiming to gain practical experience to enter the job market.

• Individuals searching for training programs to boost their career opportunities.

3- Companies and Organizations:

• Entities offering training programs for students and graduates.

• Employers looking for young talent with skills that meet their needs.

4- E-learning Platform Providers:

• Platforms such as Coursera, LinkedIn Learning, and Udemy targeting students and graduates.

5- Universities and Academic Institutions:

• Supporting their students in building competitive career paths.
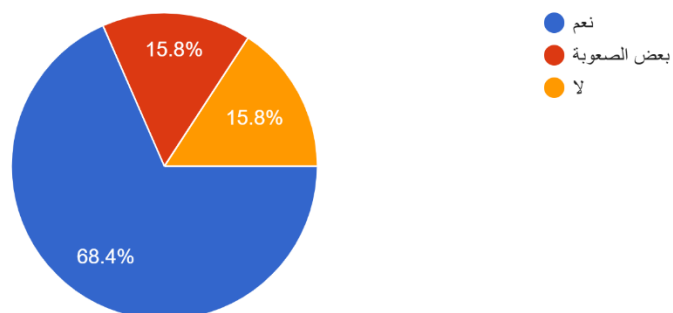
User Questionnaire:

Name:	Email:	Phone number:

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شوق غازي الحسني	ms.shouq.ghazi@gmail.com	0530548327
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بشرى	Eshiy2004@gmail.com	0551438593
جوري	Oryj.1a@gmail.com	0500339869
Weam Zuhair felemban	weamfele@outlook.com	0548191901
-	-	-
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ود	Weddew863@gmail.com	0532040242
ورود محمد	wrrod573@gmail.com	0556921068
سندس هاشم	s44411917@uqu.edu.sa	0555054129

Questions asked and answers:

هل واجهت صعوبة في ايجاد تدريب تعاوني؟

19 responses

- نعم
- بعض الصعوبة
- لا

15.8%
15.8%
68.4%

ما هي المشاكل التي واجهتها في العثور على فرص التدريب التعاوني؟

19 responses

- تشتت المصادر
- عدم معرفة مصادر البحث
- صعوبة التقديم
- نقص التوجيه والإرشاد
- التواصل الضعيف مع الشركات
- كلها
- لم اصل له

21.1%
15.8%
10.5%
42.1%
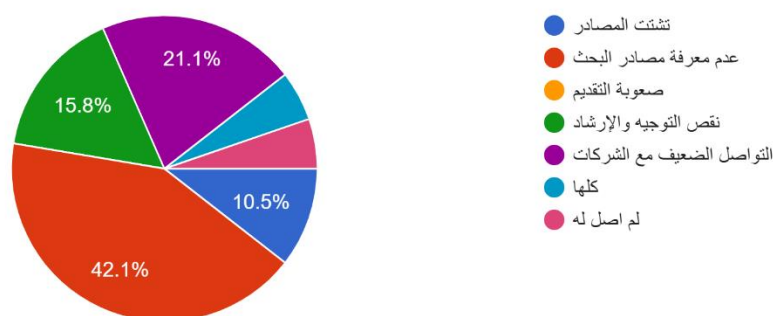
كم من الوقت تستغرق عادة في البحث عن فرصة تدريب تعاوني مناسبة؟

16 responses

- أقل من أسبوع
- من أسبوع إلى أسبوعين
- شهر
- أكثر من شهر

37.5%
18.8%
12.5%
31.3%
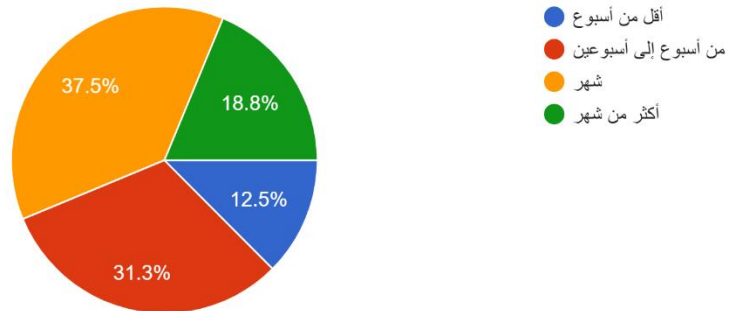
ما مدى أهمية تنظيم فرص التدريب التعاوني في مكان واحد؟

19 responses

- مهم جدًا
- مهم
- غير مهم

94.7%
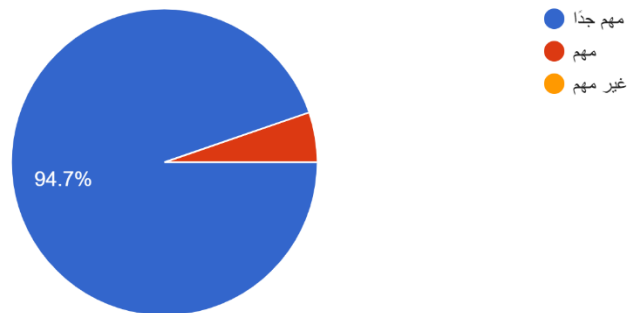
هل تعتقد أن وجود منصة موحدة لجمع فرص التدريب التعاوني والبرامج التعليمية سيكون مفيدًا؟

19 responses

- نعم
- لا
- ربما

94.7%
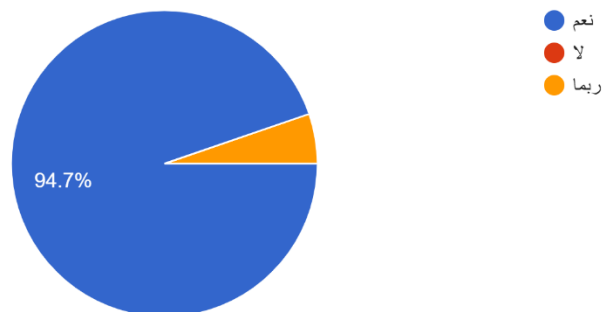
ما الميزات التي تود توفيرها في منصة تساعد في العثور على فرص التدريب التعاوني؟

- يوجهوني كيف اقدم عليها ، يدربوني ، يوفرون لي المنصات التي تقبل التدريب.
- ان يوضح كل فرصه وين مكان تدريبها عشان يسهل معرفه المناطق اللي راح يتدرب فيها الشخص وكمان ممكن تنضاف ميزه تذكير بتاريخ انتهاء التقديم (اذا مثلا احد جا يقدم وما كمل الاجراءات وقرب يقفل التقديم يجيه تنبيه او اشعار انه كمل الاجراءات لان التقديم راح يقفل)
- ان كل التخصصات تكون فيها لأني لقيت اكثر من منصة لكن تخصصي الامن السيبراني ما لقيته ولا ف اي منصة
- انو يكون فيه ميزات تخص الخريجين و الطلاب كلاً على حدا
- السهوله وان تكون موثوقه وتشمل جميع التخصصات
- ايميلات الشركات المتاحه للتدريب
- ارفاق سيرتك الذاتية في المنصة ليسهل من الجهه اختيار الطلاب
- تجميع الشركات مع بعض في مكان واحد
- تكون ضمن نطاق الجامعة
- وجود المسمى الوظيفي او اسم التخصص لمعرفة الشركات اللتي يمكن التدريب فيها في نفس مجال التخصص
- سهولة التقديم للشركات ووجود رابط لنكد ان لنفس شركة التقديم
- وجود ايميل للإستفسار عن اي شي يخص الشركة والعمل
- تصنيف كل الفرص على حسب وقتها ومكانها ومسماها
- الخانات الرئيسية تكون المدن وتحت كل مدينة تندرج المجالات مثل الحاسب والقانون والمحاسبة وغيره وتحت كل تخصص فرص التدريب المتوفرة بهذا المجال

Chapter 2: Software Requirements:

Meeting times:

Name of group member	Date and Time
Lames-Wed-Walaa	26/12/2024	3pm-4pm
Lames-Walaa- Wed	28/12/2024| 6pm-7pm

Individual tasks:

Lames: Functional and non-functional requirements; edited report.

Walaa: Functional and non-functional requirements.

Wed: Functional and non-functional requirements.

Functional Requirements:

User:

1. **The user shall be able to create an account:**
   1.1. The system shall allow the user to choose type of account: Student/recent graduate or Provider.
   1.2. The system shall allow the user to input email, phone number, and password.
   1.3. The system shall check if entered email is in the university database.
   - If the email is found in the database, the system shall retrieve relevant personal information (Name, age, job status, national ID).
   - If the email is not found in the database, it shall allow the user to enter name, age, job status and national ID.
   1.4. The system shall send a verification code via phone number.
   1.5. The system shall allow the user to enter the verification code.
   - If the code matches, the system shall create an account and display message: "New account created".
   - If the code does not match, the system shall display an error message: "Incorrect verification code".

2. **The user shall be able to log in:**
   2.1. The system shall allow the user to enter email and password.
   2.2. The system shall verify if email is in database.
   - If email is not found, the system shall display the error message: "Email or password is incorrect".
   - If email is found, the system shall verify if entered password is correct.
   - If password is incorrect, the system shall display the message "Recover password."
   2.3. The system shall display the following if user is a Student: Current Applications, Personal Information, Explore Opportunities.
   2.4. The system shall display the following if user is an Provider: View applicants, View public announcements, Edit opportunities, Open Student View.

3. **The user shall be able to modify personal data:**
   3.1. The system shall allow the user to access the personal data page.
   3.2. The system shall allow the user to modify the required data.
   3.3. The system shall allow the user to save the modifications.
   - If the data does not comply with the entry rules, the system should inform the user by displaying the message "Data does not comply with entry rules".
   3.4. The system shall update the personal data in the database immediately after was modified.
   3.5 The system shall display message to the user: "Data updated successfully".

Student:

4. **The user shall be able to fill out the quick CV template:**
   4.1. The system shall allow the user to access the quick CV template.
   4.2. The system shall allow the user to fill out the quick CV template with the following information: Name, Birthday, Phone number, Email, City, Adress, University Name, level, Major, Languages, Experience.
   4.3. The system shall store the user's quick CV in the database.

5. **The user shall be able to edit quick CV:**
   5.1. The system shall allow the user to access the quick CV template.
   5.2. The system shall allow the user to modify the quick CV template.
   5.3. The system shall allow the user to save the modifications.
   5.4. The system shall update the user's quick CV in the database.
   5.5. The system shall display message to the user: "Quick CV updated successfully".

6. **The user shall be able to apply to a program:**
   6.1. The system shall display to the user on the Explore Opportunities tab open opportunities that are available based on their major and opportunity interests.
   6.2. The user shall be able to view opportunity information, applicant requirements, time, places, employer, and application deadline.
   6.3 The system shall allow user to apply to program by manual application, or, if allowed by employer, Quick CV.
   6.4 The system shall send user resume and information to employer.
   6.5 The system shall save application in Current applications database.
   6.6 The system shall display message: "Successful application".

7. **The user shall be able to check the results of their application:**
   7.1. The system shall allow the user to see the result of the application
   7.2. The system shall provide the user with the ability to reject and accept
   -If the user agrees, he will be directed to the next step to complete the acceptance procedures.
   -If the user refuses, he will be returned to the home page.

Internship provider:

8. **The user shall be able to specify acceptance procedure:**

   8.1. The system shall allow the provider to enter the words that will appear to the applicant if he is accepted or rejected and store it in the database.

   -if

   8.2. The system shall allow the provider to enter the necessary procedures that will appear to the student upon acceptance and store them in the database.

9. **The user shall be able to see the list of applicants:**
   9.1. The system shall store the names ,quick CV or manual application of all applicants in the database.
   9.2. The system shall provide a table that allows employees to view all stored names ,quick CV or manual application

10. The user shall be able to fill out the training opportunity announcement template:

10.1. The system shall allow the user to access and fill out the training opportunity announcement template.

10.2. The system shall allow the user to input the location, training period, Name of coach, field.

10.3. The system shall allow the User to specify the registration period or leave it open.

10.4. The system shall store the announcement details in the database.

10.5. The system shall display the announcement to the targeted users.

11. The user shall be able to accept applicants:

11.1. The system shall provide the user with the ability to change the applicant's status from "Applicant" to "Accepted"

11.2. The system shall allow the user to send an acceptance message to the applicant

11.3. The system shall allow the user to add the necessary conditions to complete the acceptance procedures.

12. The user shall be able to reject applicants

12.1. The system shall provide the user with the ability to change the applicant's status from "Applicant" to "Rejected".

12.2. The system shall provide the user with the ability to send a rejection message to the applicant.

13.The user shall be able to close the training opportunity announcement:

13.1. The system shall allow the Employer to access the option to close the training opportunity announcement.

13.2. If the Employer chooses to close the training opportunity announcement, the system should update the status of the announcement to "Closed". Otherwise, the system should keep the status as "Open".

13.3. The system shall stop accepting new applications for the closed announcement.

14. The user shall be able to log out:

14.1. The system shall check if the user wants to log out.

14.2. If the user wants to log out of the system, the system should log the user out and redirect them to the homepage. Otherwise, the user should not be logged out.

-Non- Functional Requirements:

1. **Performance:** Announcements and applications should be sent in less than 5 seconds.
2. **Authorized:** permissions to modify and access data are granted only to designated individuals who are authorized to do so.
3. **Compatibility:** The system must be compatible with university websites and student databases.
4. **Response Time:** The system should respond within 3 seconds when searching for training opportunities.
5. **Scalability:** The system should support a growing number of users and training opportunities without impacting performance.
6. **Backup & Recovery:** The system should implement automated daily backups of the database and ensure recovery from backups is possible within 30 minutes in case of failure.

Chapter 3: Software Modeling:

Meeting times:

Name of group member	Date and Time
Lames-Wed-Walaa	11/1/2025-4pm-6pm

Individual tasks:

Lames: Transformed functional requirements to use case.

Walaa: Context diagram.

Wed: Use case diagram.

-Context Diagram:

```
          +---------------------+
          |     <<System>>      |
          |    Universities     |
          |                     |
          +---------------------+
                     |
                     |
          +---------------------+
          |     <<System>>      |
          |       Aafaq         |
          |                     |
          |                     |
          |                     |
          +---------------------+
                     |
                     |
          +---------------------+
          |     <<System>>      |
          |  Training Courses   |
          |                     |
          |                     |
          +---------------------+
```
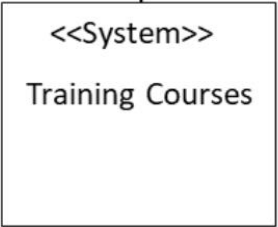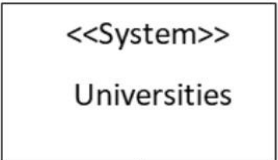
-Use Case Diagram:
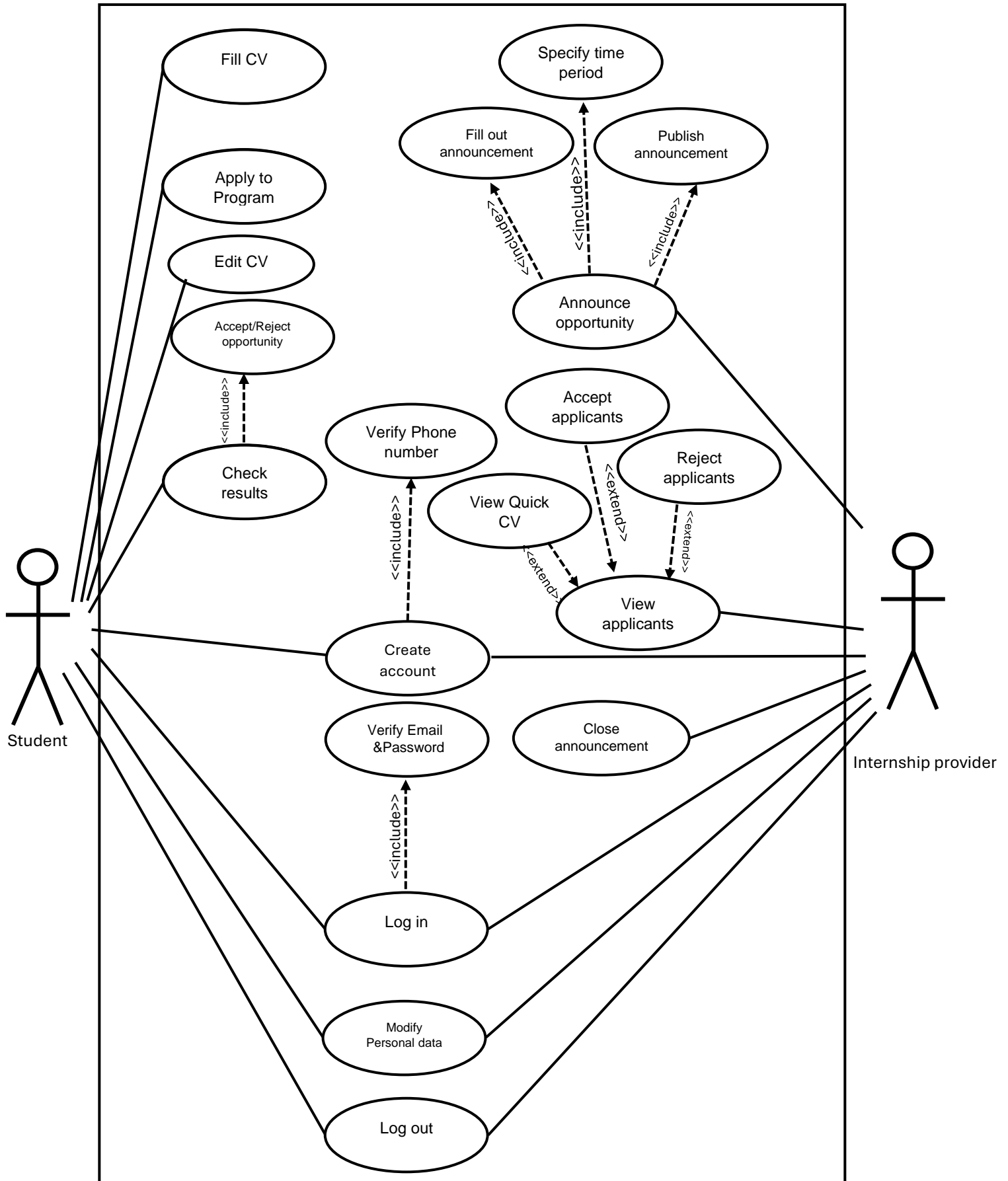
Use case text(scenario):

Afaq: Create account	
Actors	Student, Provider
Description	A user creates an account by choosing type of account (Student/recent graduate or Employer) and inputting email, phone number, and password. The system shall check if entered email is in the university database. If the email is found in the database, the system shall retrieve relevant personal information (Name, age, job status, national ID). If the email is not found in the database, it shall allow the user to enter name, age, job status and national ID. The system shall send a verification code via phone number to verify. The user shall enter verification code and if correct the system shall create an account and display message: "New account created". If the verification code is not correct, the system shall display an error message: "Incorrect verification code".
Data	User phone number, email, password, verification code, name, age, job status, national ID
Stimulus	User inputs data for account creation
Response	Confirmation that the account has been created successfully
Comments	The user must complete all steps to create an account.

Afaq: Log in	
Actors	Student, Provider
Description	The user will log in by entering their email and password. The system shall verify if email is in database. If email is not found, the system shall display the error message: "Email or password is incorrect". If email is found, the system shall verify if entered password is correct. If password is incorrect, the system shall display the message "Recover password."
Data	User email, password
Stimulus	User command issued by student or provider
Response	The user will log in and interface display will be based on user classification (student or provider)
Comments	

Afaq: Modify personal data

Actors	Student, Provider
Description	The user modifies their personal data by accessing the personal data page. The system shall allow the user to modify the required data and to save the modifications. The system will verify that the data complies with the entry rules. If the data does not comply with the entry rules, the system shall inform the user. The system shall update the personal data in the database immediately after was modified and shall display the message to the user: "Data updated successfully".
Data	Modified personal data
Stimulus	User command issued by user to modify personal data
Response	The system updates user personal data and confirms the update to the user.
Comments	The user must input data in the correct format to modify personal data successfully.

Afaq: Fill out quick CV

Actors	Student
Description	The user will fill out the quick CV template by accessing the quick CV template. The user will fill out the quick CV template with the following information: Name, Birthday, Phone number, Email, City, Adress, University Name, level, Major, Languages, Experience. The system shall store the user's quick CV in the database.
Data	User Name, Birthday, Phone number, Email, City, Adress, University Name, level, Major, Languages, Experience
Stimulus	User command issued by user to fill out quick CV template.
Response	Confirmation that the quick CV has been created successfully.
Comments	Only students can create a quick CV.

Afaq: Edit quick CV

Actors	Student
Description	The user will access the quick CV template. The system shall allow the user to modify the quick CV template and to save the modifications. The system shall update the user's quick CV in the database. The system shall display message to the user: "Quick CV updated successfully".
Data	Modified infromation
Stimulus	User command issued by user to edit quick CV template.
Response	Confirmation that the quick CV has been updated successfully.

Comments	Only students can edit a quick CV.

Afaq: Create account

Actors	Student
Description:	allow the user to see the result of the application,provide the user with the ability to reject and accept -If the user agrees, he will be directed to the next step to complete the acceptance procedures. -If the user refuses, he will be returned to the home page.
Data	Accept, Reject
Stimulus	User accept or reject the result
Response	The user will be directed to the next page if he agrees to the results, and if he rejects them, he will be returned to the main page
Comments	Only students can apply to programs

Afaq: Apply to program

Actors	Student
Description	The user will view the displayed opportunities on the Explore Opportunities tab, and the opportunity information, applicant requirements, time, places, employer, and application deadline. The user can choose to apply to a program by manual application, or, if allowed by employer, Quick CV. The system shall send user resume and information to employer. The system shall save application in Current applications and in database. The system shall display message: "Successful application".
Data	User CV, information
Stimulus	User command issued by user to apply to program
Response	Confirmation that the application has been sent successfully
Comments	Only students can apply to programs

Affag : Check result

Actors	Student
Description:	allow the user to see the result of the application,provide the user with the ability to reject and accept -If the user agrees, he will be directed to the next step to complete the acceptance procedures. -If the user refuses, he will be returned to the home page.
Data	Accept, Reject
Stimulus	User accept or reject the result
Respons	The user will be directed to the next page if he agrees to the results, and if he rejects them, he will be returned to the main page
Comments	Only students are allowed to accept or reject program applications.

Affag : view applicants

Actors	provider
Description:	The system shall store the names of all applicants in the database and provide a table that allows employees to view all stored
Data	
Stimulus	Provider Request View Applicants
Response	Display table of applicants
Comments	Only the provider can view applicants

Affag:Announce opportunity	
Actors	Provider
Description	The system enables the provider to create and publish training opportunity announcements by filling out an announcement template. The provider can enter the necessary details, such as the location, training period, coach's name, and field of training. Additionally, the provider can specify the registration period or leave it open. Once the template is completed, the system saves the announcement details in the database and displays it to the targeted users
Data	Fill out the announcement details,Specify the registration period (optional),Publish the announcement
Stimulus	Fill out the announcement and specify the registration period
Response	Displays announcement to targeted users.
Comments	Fill out the announcement details,Specify the registration period (optional),Publish the announcement

Aafaq: Accept applicants	
Actors	Provider
Description	The user shall be able to accept applicants. The system shall allow the user to change the applicant's status from "Applicant" to "Accepted". The system shall allow the user to send an acceptance message to the applicant. The system shall allow the user to add the necessary conditions to complete the acceptance procedures.
Data	Applicant's status, acceptance message, acceptance conditions.
Stimulus	User selects "Accept" option for an applicant.
Response	The system updates the applicant's status to "Accepted" and sends an acceptance message with necessary conditions.

Comments	The user must specify the acceptance conditions before sending the acceptance message.

Aafaq: Reject applicants	
Actors	Provider
Description	The user shall be able to reject applicants. The system shall allow the user to change the applicant's status from "Applicant" to "Rejected". The system shall allow the user to send a rejection message to the applicant.
Data	Applicant's status, rejection message.
Stimulus	User selects "Reject" option for an applicant.
Response	The system updates the applicant's status to "Rejected" and sends a rejection message.
Commens	-

Aafaq: Close the training opportunity announcement	
Actors	Provider
Description	The user shall be able to close the training opportunity announcement. The system shall allow the Employer to access the option to close the training opportunity announcement. If the Employer chooses to close the training opportunity announcement, the system shall update the status of the announcement to "Closed". Otherwise, the system shall keep the status as "Open". The system shall stop accepting new applications for the closed announcement.
Data	Training announcement status.
Stimulus	Employer selects the option to close the announcement
Response	The system changes the status of the announcement to "Closed" and stops accepting new applications.
Comments	the Provider does not close the announcement, the status remains "Open".

Aafaq: Log out	
Actors	Student, Provider
Description	The user shall be able to log out. The system shall check if the user wants to log out. If the user chooses to log out, the system shall log the user out and redirect them to the homepage. Otherwise, the user shall remain logged in.
Data	Session status.
Stimulus	User selects the "Log out".
Response	The system terminates the user's session and redirects to the homepage.
Comments	the user does not confirm, they remain logged in.

Chapter 4: Software Design

Meeting times:

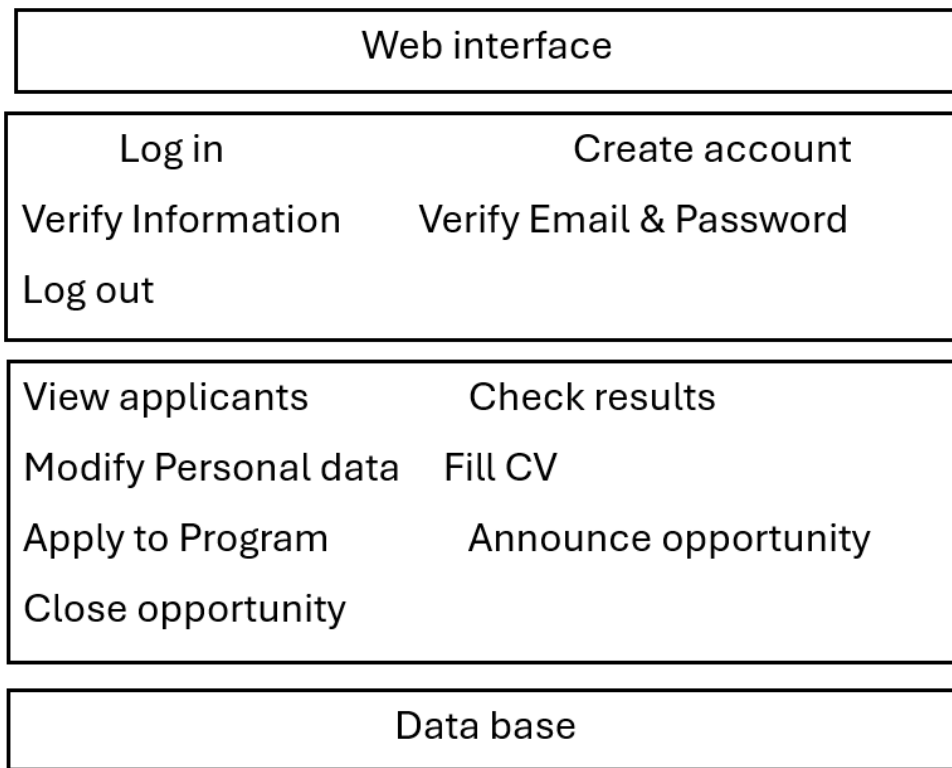| Name of group member	Date and Time
Lames-Wed-Walaa	18/1/2025 2pm-4pm

Individual tasks:

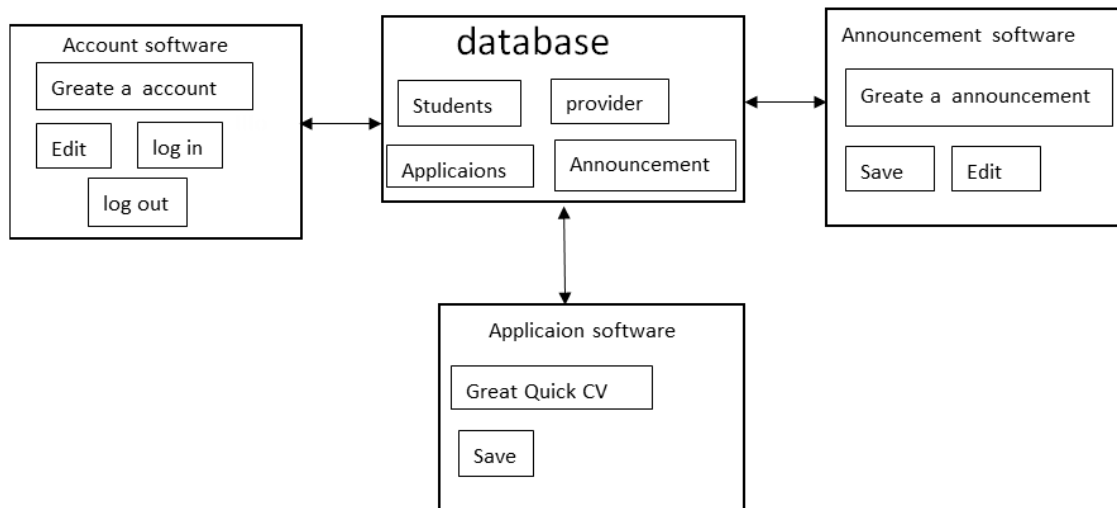Walaa: Model-View-Controller model and Active-Repository Architecture

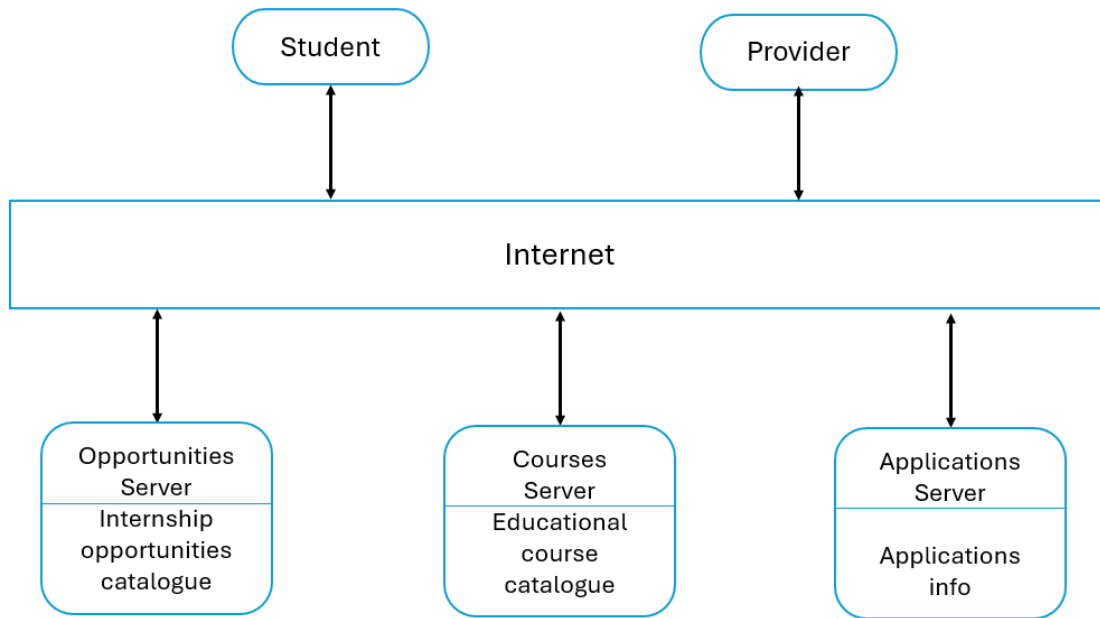Wed: Layered architecture model

Lames: Client-Server model.

-The Layered architecture pattern:

```
┌─────────────────────────────────────────────────┐
│                 Web interface                   │
└─────────────────────────────────────────────────┘
┌─────────────────────────────────────────────────┐
│    Log in                     Create account    │
│  Verify Information      Verify Email & Password │
│  Log out                                         │
└─────────────────────────────────────────────────┘
┌─────────────────────────────────────────────────┐
│  View applicants          Check results         │
│  Modify Personal data    Fill CV                │
│  Apply to Program         Announce opportunity   │
│  Close opportunity                               │
└─────────────────────────────────────────────────┘
┌─────────────────────────────────────────────────┐
│                  Data base                      │
└─────────────────────────────────────────────────┘
```

-Active-Repository Architecture

```
┌──────────────────────┐        ┌──────────────────────┐        ┌──────────────────────────┐
│  Account software    │        │      database        │        │  Announcement software   │
│ ┌──────────────────┐ │        │ ┌─────────┐ ┌───────┐│        │ ┌──────────────────────┐ │
│ │ Greate a account │ │◄─────► │ │Students │ │provider││◄─────►│ │ Greate a announcement│ │
│ └──────────────────┘ │        │ └─────────┘ └───────┘│        │ └──────────────────────┘ │
│ ┌────┐  ┌──────┐     │        │ ┌──────────┐┌───────┐│        │ ┌──────┐  ┌──────┐        │
│ │Edit│  │log in│     │        │ │Applicaions││Announce││        │ │ Save │  │ Edit │        │
│ └────┘  └──────┘     │        │ └──────────┘│ ment  ││        │ └──────┘  └──────┘        │
│     ┌────────┐       │        │             └───────┘│        └──────────────────────────┘
│     │ log out│       │        └──────────────────────┘
│     └────────┘       │                  ▲
└──────────────────────┘                  │
                                          ▼
                          ┌──────────────────────────┐
                          │   Applicaion software    │
                          │ ┌──────────────────────┐ │
                          │ │ Great Quick CV       │ │
                          │ └──────────────────────┘ │
                          │ ┌──────┐                 │
                          │ │ Save │                 │
                          │ └──────┘                 │
                          └──────────────────────────┘
```

-Client-Server model:

The Model-view-controller(MVC):