Functional requirements

1. Title: User Registration

   Description: As the user has entered our website, he/she has to register to be able to access   information page and create his/her own profile.

   Input: The user must provide the user-name, university e-mail address, password. After the verification code is sent, the user must provide the code received.

   Output: Verification code will be sent to user's university e-mail address. After providing the received code, the personal profile for the user is created.

2. Title: User Log in

   Description: As the user has registered, then the user should be able to log in by entering his user-name or email address and his/her password.

   Input: The user must provide the user-name or email address and his/her password.

   Output: Open the information page and his/her personal profile.

3. Title: User FAQs

   Description: As the user has logged in, then the first page that is shown should include "FAQs" button. The user can press it, then will go to another page that contain several numbers of frequently asked questions and their answers.

   Input: User should click on the FAQs button as well as the user can enter their question if he/she don't find it in the FAQs.

   Output: New page with several number of frequently asked question and their answers, sending the new questions to the admins as to answer it and put it in the FAQs if it's a common one.

4. Title: User Requests

   Description: As the user has logged in, then the first page that is shown should include "Extract Paper" button. As the user click on it, it will open another page containing several Request forms. He/she can choose the required request and enter the required data. Also, he/she can view the progress of the request process.

   Input: Clicking on the extract paper button, entering the required form information.

   Output: Sending the request to the admin to follow the process to finish the required request.

5. Title: User Profile

   Description: As the user has logged in, then the first page that is shown should include "Profile" button. As the user click on it, it will open another page containing his/her information. User can view all the requested forms he/she had done as well as viewing the current requests required and see its progress.

   Input: Clicking on profile button and adding new personal information.

   Output: viewing the previous requests, the current one and its progress.

6. Title: Notification

   Description: As the user requested to extract paper, the request will be sent to the admins as to make the required process for the request, when the admins finish it, he/she will send a notification to the user informing the time to get the required paper from the student affairs office.

   Input: Requiring certain request and fill-inthe required information then submitting it to the admins.

   Output: Notification message will be sent with the specific time to get the required paper from the student affairs office.

7. Title: User Payment

Description: Some Requests need to pay fees for it. So, the user can pay online through "Fawry" by getting a code to pay with it.

Input: Requiring certain request which needs fees to be paid. Clicking on Fawry button to generate the code.

Output: Special code will be generated to pay with it the required fees.

Non-Functional Requirements

Performance

Student affairs system introduces huge amount of student information and many student services. The system offers the contents and service to both mobile and desktop users via web based.

- ### Storage

  Student affairs uses traditional structured database which provide better queries and data processing over structured contents. MySQL is the world's most popular open source database. With its proven performance, reliability, and ease-of-use, MySQL [1] has become the leading database choice for web-based applications, used by high profile web properties including Facebook, Twitter, YouTube, and all five of the top five websites. Additionally, it is an extremely popular choice as embedded database, distributed by thousands of ISVs and OEMs.

  ### Data Processing

  Data processing module is responsible on providing all data related services like data modelling and correction, data transformation, data classifier and multimedia processing. Data modelling and correction is required to understand the textual material based on the related language model. Data transformation is required to allow import and export of different data format. The system supports common data formats supported by common data processors applications. Multimedia processing is required to enhance the quality of multimedia contents like images. It converts multimedia contents to unified format

Security

Maximum need to user's authentication and communications security. User can register/login using internal accounts. The portal access must be made using https protocol in order to secure the communication. Security module also, responsible on managing the permissions and roles. Users are either students or employees. Security module also, responsible on detecting the threats and preventing data theft. The system is tested against common attacks using known penetration testing tools.

Usability

Students Affairs Website is a tool that will accelerate the workflow of SA department and offer great deal of comfort for both applicants and employees. Online student affairs offer answers for all student's enquiries and FAQs, easy & quick access to any document procedures, student can manage all his\her requests supported with online payment as well as mail notifications.

- Offers easy and effective online student affairs service.
- Offers recorded answers for frequently asked questions and inquiries about any document procedures.
- Offers effective way of students/affairs office interaction, document follow up and final reception.
- Offers organized and secure way of certification and official documentation with online fees payment.
  - Offers free and self-growing service to everyone

Development

The system development is performed using Agile methodology. Initial R&D activity should be applied to experiments tools and techniques. Later continuous R&D activity will run beside the system development activities. Student affairs will be developed using open source tools, languages and servers. This will decrease the cost especially for long term operation. While development only online tools will be used for management, tracking, testing and source control. This will increase the collaboration between team members even they are not located at the same place. Also, this will allow external teams and members to participate.

Technology

user can request forms and pay the required fees online through "Fawry" by generating code to pay with it also user get notifications when his/her request is done.

Operation:

user can easily track and follow the request step by step through all the procedures to get frequent feedback and updated time

The system consists of following modules: (1) Student Area, (2) Employee Area, (3) System Administration Area, (4) supervisors Area.

- **Student Area**

  This module provides all student needs in a very comfortable environment. The student can request the document he wants and fill all the required information and pay online for the documents that require some fees. The student will be notified when his document is finished. The student can send his enquiries to student affairs department and get notification when they answer it.

- **Employee Area**

  This module provides employee all the tools required to manage student affairs department. The employee will receive the student's request with student information. The employee can notify the student when his is paper is finished. The employee can answer students' questions online.

- **System Administration Area**

  This module is dedicated for system administrators. System administrators responsible on system management, configuration, backup and solving technical issues. System administrator can view system status, data status, online sessions, logs and other system status and measures.

- **Supervisors Area**

This module is dedicated for system operators. System operators are responsible on managing the system operation and contents. System operator can access all system contents, view statistical reports and provide direct support to users.