System Description

What is Student Affairs

Over the past couple of years, Faculty of Engineering, Ain Shams University has witnessed a great deal of renovation. Still, Students Affairs (SA) office has not yet seen any remarkable change.

The Traditional system forces the student to waste his time standing in a huge queue just to make a request or ask a little question, also employees waste time on receiving documents and inquiries from students and make great efforts managing and organizing forms.

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.

Student Side

Through this website student can apply for his needs in a very comfortable environment, with one click the student will be able to:

- make most of his requests easily.
- Receive a list of required files for his specific request.
- Pay online for the request if needed.
- Know when his document will be ready through a mail notification.
- Know information he needs through FAQs.
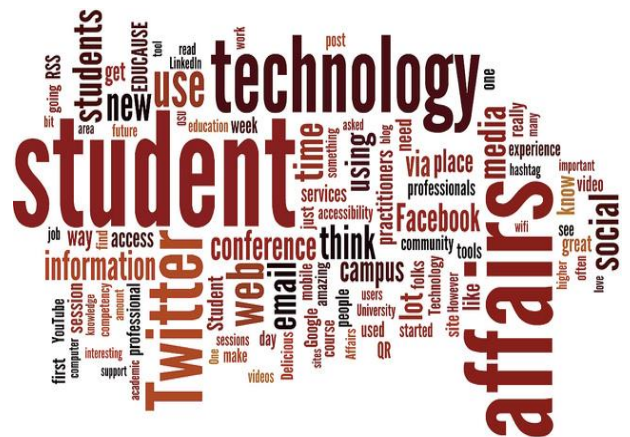
The website will also make it easier for making inquiries and receiving specific answers from employees, saving time and avoiding any problems.

Employee Side

On The other side for the employee it enables them reaching the information they need as admins just by hitting a button, instead of going through many boxes and pages. Thus this will save time, efforts, avoiding any kind of missing data, and make all their jobs done easily. The employees will receive the student request with student information so they can prepare the required document and send the student a notification when his paper is finished.

System Architecture

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

The system consists of following modules: (1) Storage, (2) Data Processing, (3) Student Area, (4) Employee Area, (5) System Administration Area, (6) Supervisors Area, (7) Security.
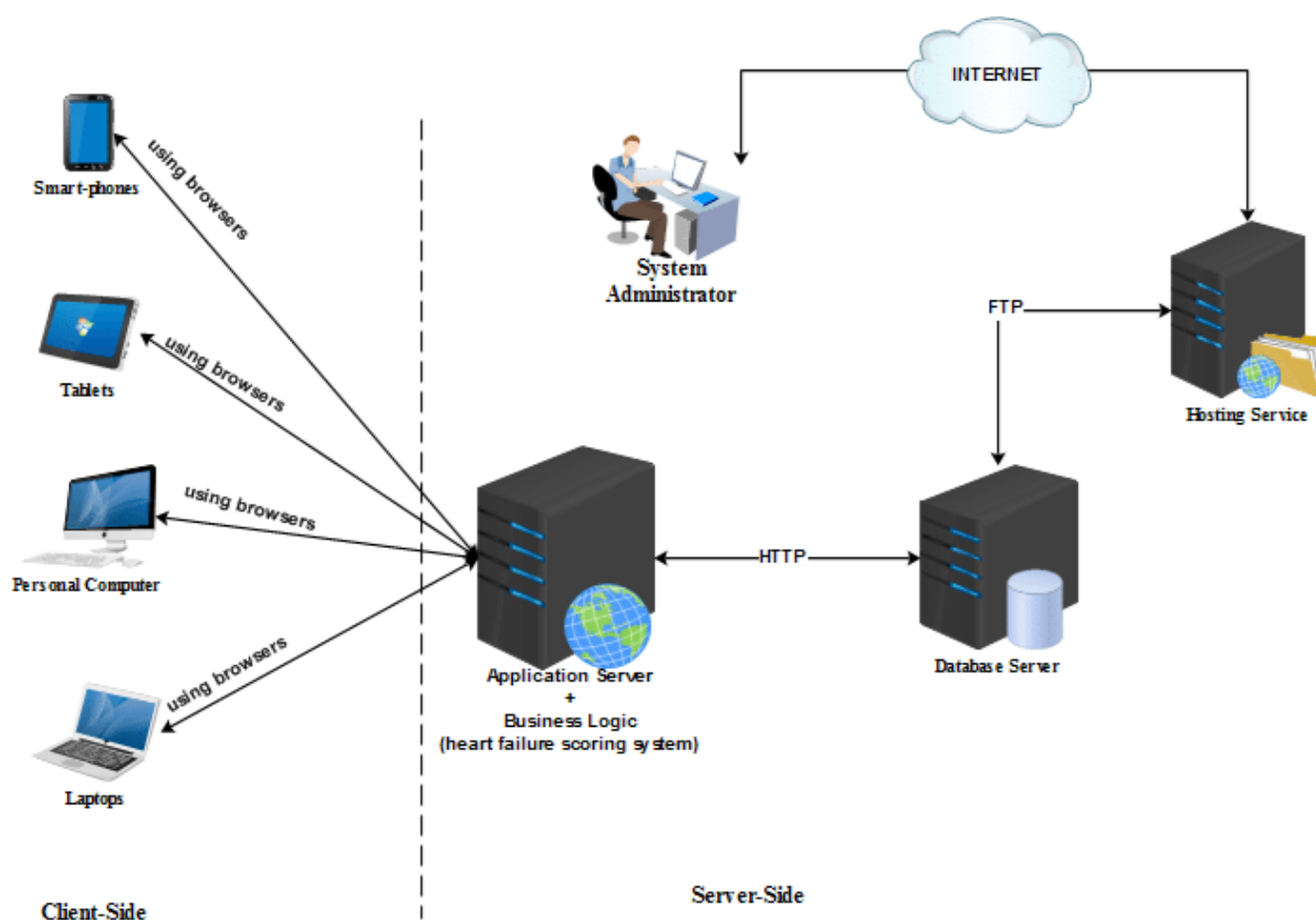
Storage

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 modeling and correction, data transformation, data classifier and multimedia processing. Data modeling 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.

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.

Security

Security module is responsible on user authentication and communications security. User can register/login using internal accounts. The portal access is 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. Data theft is prevented using various data protection techniques.

References

1- URL: https://www.oracle.com/MySQL