## SOFTWARE REQUIREMENTS SPECIFICATION



INTER.COM - SE2018G14

2-12-2018



## INTRODUCTION

#### **EXECUTIVE SUMMARY**

Intern.com is simply a platform that connects companies and students seeking practical experience each in his field through internships that companies offer through our website.

#### In Intern.com

- Students will be able to create their own accounts with high level of security using (usernames, e-mails, passwords)
- Companies will have a platform where they can offer internships for all possible majors.
- Our text-based search engine will then notify our users of all the possible internships that will be suitable for them based on their major and year of education, they will be able to apply and send their CVs through the website as well.
- Updates about our users' applications will be available for them to keep track of their acceptance/rejection path.

Business Owners will have a platform on which they can reach the intended Student, knowing that the platform is a common/known place for all Students from all majors.

Whether paid or not, many recruiters will value your unpaid experience too and you would have the opportunity to experience corporates life!

### **OVERVIEW**

The next chapter, the Overall Description section, of this document gives an overview of the functionality of the product. It describes the informal requirements and is used to establish a context for the technical requirements specification in the next chapter.

The third chapter, Requirements Specification section, of this document is written primarily for the developers and describes in technical terms the details of the functionality of the product.

Both sections of the document describe the same software product in entirety but are intended for different audiences and thus use different language.

## ABBREVIATIONS AND TERMINOLOGIES

TERM	DEFINTION
intern	Website name
user	Students seeking internships
Business owner	Companies and recruiters offering internships.
Database	Collection of all information monitored by this system.
Platform	A group of technologies that are used as a base upon which other applications, processes or technologies are developed
Internships	The position of a student or trainee who works in an organization, sometimes without pay, in order to gain work experience or satisfy requirements for a qualification.



## SYSTEM DESCRIPTION

### INTRODUCTION

Intern.com is a website where companies can create profiles offering internships and applicants can apply for them by creating profiles then fill their majors and the fields they are interested in having an internship in and once there is an opportunity available they can upload their resumes and send it to the company to evaluate them and contact the applicant if he/she is suitable.

#### **USERS**

- **Companies:** The companies will use the website to make accounts so they can announce whenever there is an internship available with a description of it so the applicants can apply and fill the form and be able to contact the company.
- Applicants: The applicants will be undergraduates or fresh graduates seeking an opportunity for internship in their field so they fill a profile with the list of companies and the field they are interested in having an internship in.

### **MODULES**

- **Search Engine** with plenty of options to assist the undergraduates find an opportunity suiting them.
- Alert System, an alert can be set by the undergraduate in which he can request to be notified by email/website notification system if an internship in a specific field is posted
- **Registration,** a step by step profile setup so that after registration the undergraduate/company is ready to fully benefit with the website features.
- Login, we should assure secure connection for our users specially from the companies' side since critical information can be leaked.
- User Profiles, A simple profile system shall be made clear to use for all users (Companies/Interns) leaving the ability to develop separate profile systems in the future.
- Application Management, companies will be able to post internships on the site which would then appear on the homepage for undergraduates with matching profiles, it would also appear in searches related to it (done by the search engine), application management tools will be available for the company to make their job easier and scalable.



## SYSTEM USERS

## **COMPANIES**

### Description:

Companies offering internships have accounts so they can announce when there is an opportunity for internship available and the website will be their method of communication between the applicants for the internships.

#### **Activities:**

- 1. Create an account
- 2. When there is an internship available they will post its description
- 3. CVs of the interested applicants will be sent to the companies
- 4. The companies will select the suitable applicants and contact them for further details

## **APPLICANTS**

### **Description:**

Applicants who are mostly students and fresh graduates will create accounts on the web site and they will choose their major and the companies with fields they are interested in having an internship in.

#### **Activities:**

- 1. Create an account
- 2. They will periodically check for internships or will be notified when an internship in their field is available
- 3. When they find available internship they will send their CV to the company offering it
- 4. If they are available, they will be contacted by the company for further details



## SYSTEM MODULES

## **SEARCH ENGINE**

One of the most important and critical features is to be able to direct thousands of internships in thousands of different fields to thousands if not millions of undergraduates, by providing students lots of filters that would assist in tailoring the search to their needs; matching should be smooth and accurate.

Students will be able to type any keywords they want in the **search bar** plus apply different filters such as:

#### FIELD OF STUDY

- Mechanical Power Engineering
- Computer Engineering
- o Electrical Power Engineering
- o Communication Systems Engineering
- Civil Engineering
- Architectural Engineering
- Marketing
- Sales
- Accounting
- Advertisement
- o Pharmaceutical
- Cardiology
- Dermatology
- Immunology
- Neurology
- Sports
- Miscellaneous

#### CITY WHERE THE INTERNSHIP WILL BE

#### INTERNSHIP PERIOD

- o Summer Internship
- Winter Internship
- Not Specified



## INTERNSHIP TYPE

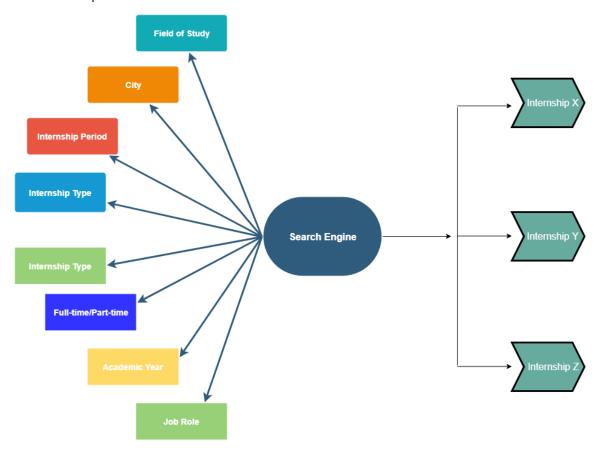
- o Paid Internship
- Not Paid Internship
- Not Specified

## ACADEMIC YEAR

## FULL-TIME/PART-TIME.

## JOB ROLE

- o Front-End Developer
- o Back-End Developer
- o Embedded Software Engineer
- Accountant
- o Marketing Specialist
- o HR Specialist





## ALERT SYSTEM (FUTURE IMPLEMENTATION)

Undergraduates will have the option to create an alert linked to their accounts in which they can put a search keyword & apply filters (just like in the Search Engine) so that once a new opportunity gets posted that matches this alert, some sort of notification (email or onsite alert) would be sent to the student.



## REGISTERATION

When undergraduates/companies try to register a new account they will be directed to a step by step instructions on how to set up a fully informative and clear profiles to obtain the maximum benefits from the website.



## LOGIN

A fully secured connection should be established with the users on login, with the needed checks to approve that it's the true account owner before giving access.

Good secure passwords will be forced on users upon registration, a captcha or similar methods will be used to determine if it's a bot or a human to avoid password cracking software from poking around.



## USER'S PROFILE

Users will have the ability to create accounts, an account will be very simple to use and will be general that companies and undergraduates will be able to use with ease.

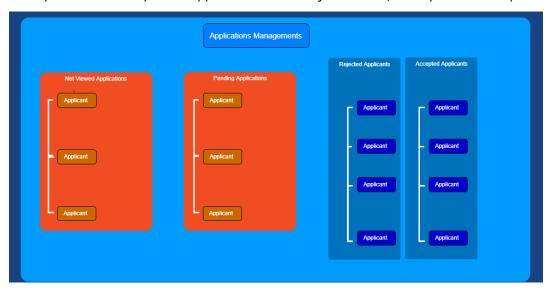
Information needed for internships will be specific to each internship post, so no need to bother users (companies) at registration with it.

When a user(intern) tries to apply for an internship he will have to upload his CV and put his mobile number.



## APPLICATIONS MANAGEMENT

Companies have the ability to manage the applications, onsite. of the internships they posted, by default all applications (related to this internship) will be put in a "List of Applications" list which is neutral, the user will have the ability to change the status of a specific application to "Rejected" or "Accepted" which will put the application in the "Rejected List", "Accepted List" respectively.





## SYSTEM FUNCTIONS

### CREATING A USER ACCOUNT

- **Description**: User has to create an account with all the required information.
- Inputs: Required data: Username, Email & Password
- Outputs: An general account which can be used by Students/Companies, with
  options of searching available internships, applying to internships, posting internships,
  managing applications of internships which the user posted.
- **Pre-conditions**: Data required must be filled
- **Post-conditions:** Only the user account enables the user to find internships and opportunities and use other facilities on the website.

## **SEARCH ENGINE:**

- **Description:** A search engine equipped with a highly specific and detailed filter options which would make the search for an internship tailored for each and every user.
- Inputs: User's field, Year of graduation and his interest.
- Outputs: Internships' opportunities offered by Business Manager accounts.
- **Pre-conditions:** Data required for the search engine must be filled.

## APPLY TO AN INTERNSHIP

- **Description:** User can choose a specific internship to apply to.
- **Inputs:** Internship ID, User mobile number & CV.
- Outputs: None
- Pre-conditions: Data fields must be filled
- Post-conditions: Application will be sent to the company and stored in the database

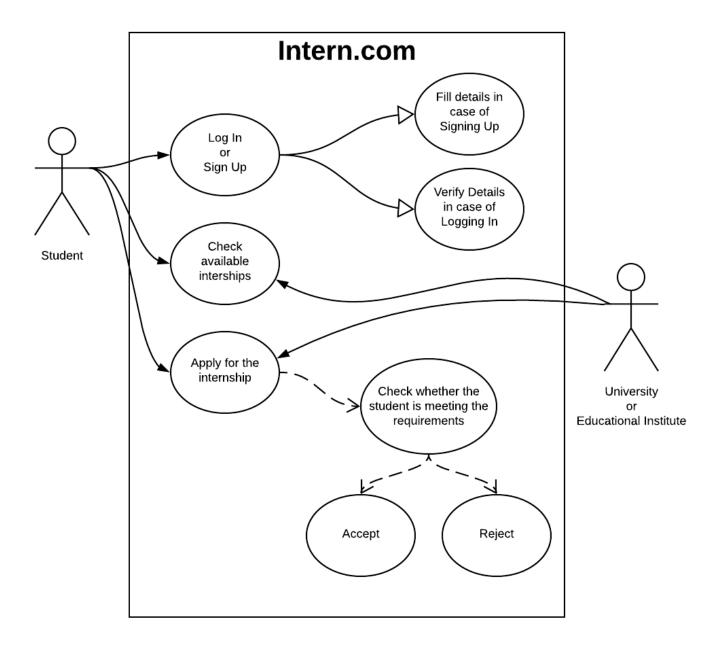
### MANAGE APPLICATIONS

- **Description:** User has the ability to manage applications of internships he posted, he can change the application's status from "neutral" to "accepted" or "rejected", which would be organized into lists.
- Inputs: Internship ID, Application ID, Status.
- Outputs: New Status
- **Pre-conditions:** Internship should belong to the user.
- **Post-conditions:** Change the applications status in the database.



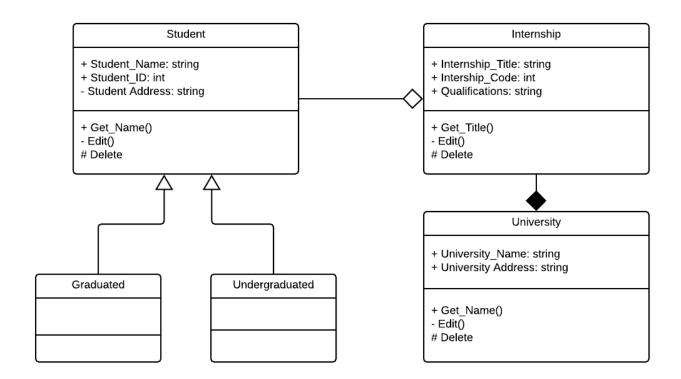
# **SYSTEM MODELS**

## **USE CASE DIAGRAMS**



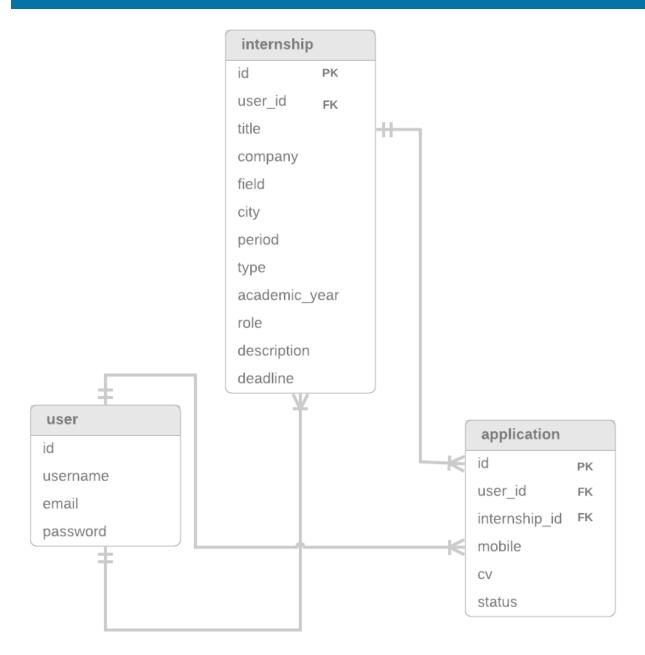


## CLASS DIAGRAM





## ENTITY RELATIONSHIP DIAGRAM





# NON-FUNCTIONAL REQUIREMENTS

ID	Requirement	Explanation
NFR-001	The website shall accommodate up to 100 users concurrently.	Whether the website should be able to accommodate up to 100 users or not depends mainly on the resources of the server hosting the website software, and not the website software itself.
NFR-002	The website can be accessed at all times.	The ability to access the website depends on whether the server hosting the website software is able to serve requests or not, and not the website software itself.
NFR-003	The website handles requests in a short period of time.	This feature depends on the server computation power. Although the website can be optimized for less resource consumption, there is no guarantee that the requests will be handled in a specific time threshold as it is mainly dependent on the server hardware.
NFR-004	The website protects sensitive data and allows only authorized access to the data.	Although the website software will be using the best practices to protect users' data from unauthorized access and possible data breaches/SQL injections, there is no 100% security, and there is no guarantee that unauthorized access may be granted.
NFR-005	The website always handles requests without failure.	Although the software will be thoroughly tested before being published, it is possible that there would be other factors causing requests to fail; common examples include the inability of the web server to handle more than X requests concurrently, where X is a value that can be configured from the web server configuration, and not the website software itself.
NFR-006	The website faults can be detected and fixed easily.	Issues with the website software might not be just related to the software code, but could be due to an inability to reach 3 <sup>rd</sup> party dependencies or an issue from the server hosting the website software, and not the website software itself.



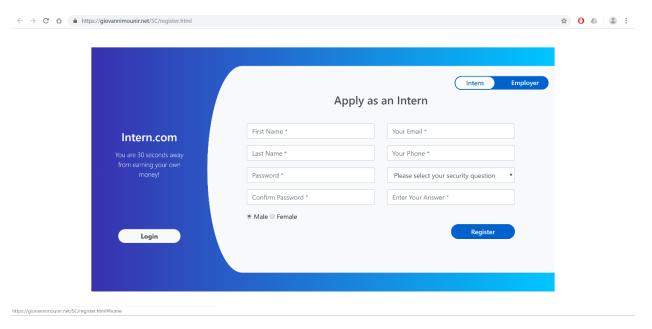
# DOMAIN REQUIREMENTS

- We should research first before developing the internship posting page on what information/fields does the company need to post internship.
- Information about what dies the companies require from the applicants to applying.

# **SYSTEM INTERFACES**

## **USER INTERFACES**

The user first creates an account then searches for an internship in the field of interest







## HARDWARE INTERFACES

### SUPPORTED DEVICE TYPES

- Mobile Phones.
- PCs

## SOFTWARE INTERFACES

#### SUPPORTED OPERATING SYSTEMS

- Windows.
- Linux.
- MAC OS.
- Android.