# SOFTWARE ENGINEERING PROJECT

## Milestone-I

GROUP 16
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# Identifying Users

The first step towards the development of any software is Requirement Gathering and Analysis.

But before we can start gathering the user requirements, it is important to identify the users of our system.

The users can be broadly classified into 3 categories:

1. **Primary Users:**
   The frequent users of the system. For example, independent sellers in the case of Amazon Seller Portal.

2. **Secondary Users:**
   These would include those who don't use the system directly but rather through an intermediary. For example, the secondary users of the Amazon Seller Portal would include the sales managers.

3. **Tertiary Users:**
   The Tertiary Users consists of those who do not use the software at all. But they are affected by the introduction of the software or may even influence the purchase of the software. For example, when talking about the seller portal, the tertiary users would include users such as the Banks & Buyers.

# Users: Ticketing System

The Potential Users for the Ticketing System include:

- **Primary Users**:
  - **Students** – The Ticketing System provides a platform wherein the students can get their queries resolved, hence they can be classified as a frequent user.
  - **Support Staffs** – Herein, the support staff is responsible for addressing the concerns of the students & resolve them to the best of their abilities. Thus, they can be classified as frequent users as well.
  - **Admins** – The admin is responsible for ensuring that the interactions strictly adhere to the community guidelines. They need to keep a close eye at the platform, and hence can be categorized as primary users.

- **Secondary Users**:
  - **Potential Students** – The Ticketing System provides a feature using which the FAQs are updated. The potential students looking for information on the institute are likely to refer to the FAQs, thereby indirectly using the platform.
  - **BSc Degree Coordinators** – The BSc Degree Coordinators want to have periodic reports on the concerns raised by the students. These reports can be created efficiently using the Ticketing System since it is a platform wherein the students raise their concerns. Hence they can be categorized as secondary users of the system.

- **Tertiary Users:**
  - **Search Engines** – Though the search engines do not use the system neither directly or indirectly, they influence the use of the software. Based on the results displayed by the search engines, the users will be able to access the application. Hence making them eligible to be referred to as tertiary users.
  - **Third Party Apps** – The Third Party Apps such as Shiksha.com, etc. do not use the system in any way but influence the use of the software by providing reviews about the institute & driving the students to explore the university, the courses offered & thus the FAQ document.
  - **IT support staff for deployment & maintenance** – The IT support staff does not use the system at all but influences the use of the software. From deployment to maintenance, the support staff ensures that the system is durable & up to the user standards. Thus, they can be classified as tertiary users as well.

# User Stories

The agile life cycle begins with the Behavior Driven Design. Herein we ask questions about the behavior of an application before and during the development. The Requirements are continuously refined to meet our expectations. The BDD Version of requirements is User Stories.

The User Stories take the place of what the SRS was in the plan and document perspective. These are short, informal and plain language description of what a user wants to do within a software product which is of value to them.

A user story is the smallest unit of work which can be done in 1 sprint. It should follow the 'Role-feature-benefit' pattern :

As a [type of user],
I want [an action],
So that [a benefit / value]

**Benefits:**

- Lightweight
- Help plan and prioritize development
- Concentrate on behavior vs implementation of the application
- Conversation between users and the development team.

As per the **SMART Guidelines**, the User Stories should be:

- **Specific** – They shouldn't be vague & at 1 glance we should be able to understand what exactly needs to be implemented.
- **Measurable** – Each story should be testable, which implies that there are known expected results for some inputs.
- **Achievable** – Ideally, we should be able to implement the user story in 1 agile iteration (1-2 weeks). If this is not possible, we should subdivide the stories into smaller ones.
- **Relevant** – The user stories should be relevant, i.e., they should have some business value to one or more stakeholders. This can be achieved by asking questions like, 'why', 'so what'.
- **Timeboxed** – Stop implementing a feature once the time budget exceeds. In such a situation we have 3 options:
    - o Give up
    - o Divide the story into smaller ones
    - o Reschedule the leftover work

# User Stories: Ticketing System

The **Primary User Stories** for the Ticketing System include:

- As a **Student**,
  I want to **enroll & login to the system using username and password**,
  So that I can **get access to the facilities** such as putting forth my queries & concerns.
- As a **Student**,
  I want to **search for existing tickets by specifying the topics or keywords**,
  So that **Duplicate Tickets aren't created**.
- As a **Student**,
  I want to be able to **like or +1 the existing tickets**,
  So that **Duplicate Tickets aren't created and at the same time the support staff can identify those queries as popular or of high priority**.
- As a **Student**,
  I want to **create a ticket** for my query / concern **under the relevant topics**,
  So that the **support team can address my concerns**.
- As a **Student**,
  I want to be **notified within 1 minute when my concerns are addressed**,
  So that I can get my **queries resolved as soon as possible**.
- As a **Student**,
  I want to **see the queries posted by my fellow learners under the relevant topics & sub-topics**,
  So that I can **go through them & learn from their posts**.
- As a **Student**,
  I want to see the **important discussions pinned to the top of my screen**,
  So that I **don't miss out on the important information**.
- As a **Support staff**,
  I want to **login to the system using the username and password**,
  So that I can **get access to the facilities** such as addressing user queries.
- As a **Support staff**,
  I want to be **identified as a support team member**,
  So that **students can trust my responses as verified & valid**.
- As a **Support staff**,
  I want to get a **list of the tickets arranged as per their popularity**,
  So that **high priority concerns are addressed first**.
- As a **Support staff**,
  I want to **mark the tickets as resolved** once I've addressed them,
  So that **students can be informed regarding the same**.

- As a **Support staff**,
  I want that the **tickets shouldn't be duplicated**,
  So that I **don't waste time** answering the same query again & again.
- As a **Support staff**,
  I want the **popular queries to be added to the FAQs**,
  so that it can **help address the concerns of the future students thereby simplifying my work**.
- As a **Support staff**,
  I want to be able to **pin the important queries once I've resolved them**,
  So that **students don't miss the important information**.
- As an **Admin**,
  I want to **login to the system**,
  so that I can **access the facilities & get the necessary controls**.
- As an **Admin**,
  I want to be able to **add the appropriate resolved tickets to the FAQs**,
  So that the **FAQs prove to be more useful** for future students.
- As an **Admin**,
  I want **controls such as reviewing, deleting, reporting the tickets**,
  So that it can be **ensured that the conversations taking place adhere to the community guidelines**.

The **Secondary User Stories** for the Ticketing System include:

- As a **Potential Student**,
  I want an **FAQ document**,
  So that I can **get all the information I need and make an informed decision**.
- As a **BSc Degree Coordinator**,
  I want a **periodic report on the concerns raised by the students**,
  So that I can **look into them & take appropriate measures**, if any required.

The **Tertiary User Stories** for the Ticketing System include:

- As a **Search engine**,
  I want to be able to **display the appropriate resources**,
  So that **people can find what they are looking for** & get their queries resolved.
- As a **Third party app**,
  I want to be able to **show all required information about institutions**,
  So that **people can compare different universities & make informed decisions**.
- As an **IT support staff**,
  I want to **deploy and maintain the software**,
  So that the **various stakeholders can access, use it with ease**.