# **User Stories**

User stories are a fundamental component in agile methodologies that describe the features from the perspective of the end user. They are designed to ensure that the user's needs are clearly understood and met.

Below are TT user stories categorised by roles, highlighting the key functionalities and goals for each role within the system. As mentioned in Requirement Analysis, our team will work on the role of "Test Developer". Therefore, we mainly focus on user stories of "Test Developer".

**Estimating user story points** is an essential practice in agile methodologies, helping teams understand the effort required to implement a feature. Our approach involves several factors to ensure accurate and realistic estimations:

- 1. Complexity: How complex the task is in terms of technical challenges.
- 2. **Effort**: The amount of work required to complete the task.
- 3. Risk: Potential obstacles or uncertainties that might affect the task.
- 4. Dependencies: Other tasks or resources that the task relies on.

We use a modified **Fibonacci sequence** (1, 2, 3, 5, 8, 13, 21, 34, 55, etc.) to assign points to each user story. This sequence helps account for the increasing uncertainty and complexity as the story points grow.

In addition, we employ "Planning Poker", a consensus-based estimation technique where team members independently assign points to a user story and then discuss discrepancies to reach a final agreement. This ensures diverse perspectives are considered, and a more accurate estimate is achieved.

# **Product Backlog**

#### **Total Story Point Estimate: 257 points**

| User<br>Story ID       | Description  | Priori<br>ty | Complexit<br>y | Effort          | Risk       | Dependencies                                 | Poi<br>nts |
|------------------------|--|--------------|----------------|-----------------|------------|--|------------|
| US001<br>(sp2)         | As a test developer, I want a user-friendly, secure, functional interface.   | High         | High           | Signific<br>ant | High       | Integration with other modules               | 29         |
| US002<br>(sp2)         | As a test developer, I want to implement a secure login system and a reliable database, so that I can securely store and protect user data and system information. | High         | High           | Signific<br>ant | High       | User<br>authentication<br>services           | 29         |
| US003<br>( <u>sp2)</u> | As a test developer, I want to construct, preserve, and eliminate tests as needed, so that I can efficiently manage the lifecycle of tests.                        | Low          | Very High      | Extensi<br>ve   | High       | Database<br>operations and UI<br>integration | 67         |
| US004<br>(sp2)         | As a test developer, I want to have the ability to add and delete items (questions) within existing tests to adapt the tests as needed.                            | Medi<br>um   | Medium         | Modera<br>te    | Medi<br>um | Existing test<br>management<br>modules       | 24         |
| US005<br>(sp2)         | As a test developer, I want to have the ability to add, edit, and delete test keys (correct answers) to ensure the validity of the tests we develop.               | Medi<br>um   | Low            | Minimal         | Low        | Test key data<br>storage                     | 6          |
| US006<br>(sp2)         | As a test developer, I want to have flexibility in defining scoring rules, so that I can specify whether the scoring   | Medi<br>um   | Very Low       | Minimal         | Low        | Scoring system                               | 1          |

|                | system is dichotomous (e.g., correct/incorrect) or allows partial scoring.   |            |                  |                 |            |                                    |    |
|----------------|--|------------|------------------|-----------------|------------|------------------------------------|----|
| US007<br>(sp2) | As a test developer, I want to have options to handle different types of answers: Ignore case sensitivity, flag answers for manual marking if partially matched, handle spelling mistakes or minor grammatical errors. | Medi<br>um | Low              | Minimal         | Low        | Answer processing logic            | 5  |
| US008<br>(sp3) | As a test developer, I want to have a secure and friendly environment, so that I can work in a stress-free atmosphere and ensure the integrity of the tests.   | Medi<br>um | Medium           | Modera<br>te    | Medi<br>um | UI and security features           | 17 |
| US009<br>(sp3) | As a test developer, I want to publish the test after everything is confirmed, so that I can guarantee the test is accurate and ready for test takers.   | Medi<br>um | Low              | Minimal         | Low        | Test management system             | 5  |
| US010<br>(sp3) | As a test developer, I want the system to automatically evaluate test taker responses based on predefined rules, so that we can efficiently assess transcription ability.  | Medi<br>um | High             | Signific<br>ant | High       | Automated scoring algorithms       | 32 |
| US011 (sp3)    | As a test developer, I want to upload test taker answers from an Excel file, and the system should handle trimming extra spaces and multi-word answers, so that the assessment process is streamlined.                 | Medi<br>um | Medium           | Modera<br>te    | Medi<br>um | File upload and processing modules | 9  |
| US012<br>(sp3) | As a test developer, I want to have the ability to download or copy marked answers result for further analysis, reporting, and maintaining records, so that we can track and improve test taker performance.           | High       | Low to<br>Medium | Minimal         | Low        | Result storage                     | 7  |
| US013<br>(sp3) | As a test developer, I want to have the ability to assign marker to tests, so that the marking process is organised and efficient.   | Medi<br>um | Low to<br>Medium | Modera<br>te    | Low        | User management system             | 8  |
| US014<br>(sp4) | As a test developer, I want to integrate other teams for full functionalities, so that the system can benefit from a range of expertise and provide a comprehensive testing platform.                                  | High       | High             | Signific<br>ant | High       | System                             | 18 |

### **Admin**

- 1. As an Admin, I want to add and remove all user types, including Test developers and Markers, so that I can manage the access and roles within the system.
- 2. As an Admin, I want to have the ability to set up the scoring system for tests, including specifying the number of items marked in the test and assigning points for each item.
- 3. As an Admin, I want to allocate markers to specific tests so that tests are marked consistently and efficiently.

### Marker

- 1. As a Marker, I want access to tests assigned to me for manual marking so that I can evaluate answers that were flagged by the automatic scoring system.
- 2. As a Marker, I want a dedicated interface to view and manually mark answers flagged for manual marking, with access to the corresponding test keys for reference.

- 3. As a Marker, I want to see the keys for each item as I mark so that I can make informed decisions about the marks.
- 4. As a Marker, I want to assign marks (correct, incorrect, or other outcomes defined by the test developer) to the flagged answers, so that I can complete the manual evaluation process.
- 5. As a Marker, I want access to an archive/library containing all tests for future reference and use, with the ability to edit test keys and copy tests for different analyses.
- 6. As a Marker, I want a profile section where I can update my password for enhanced security.
- 7. As a Marker, I want to upload test answers and have them automatically trimmed for extra spaces so that the data is clean and consistent for scoring.