

Sri Lanka Institute of Information Technology

**Institue Management System**

**Product backlog**

**Sprint backlog**

**ER diagram**

Information Technology Project (IT2080)

2018

ITP-2018-MLB-G1-12

Submitted by:

1. IT16067684– Ramanayaka R.A.M.M.P
2. IT16063556– Vijeyanga M.S.O.V
3. IT16065154– Maduranga G.D
4. IT17128278– I.C.S. Ileperuma
5. IT17124690– Wijesekara W.A.M.P

**Product Backlog**

|  |  |  |
| --- | --- | --- |
| **Id** | **Description** | **Priority** |
| 1 | * As an unauthorized user I want to view latest courses, news, public events related to the institute. So that I can participate. * As an unauthorized user, I want to get the contact information. So that I can contact the institute. | 1 |
| 2 | * As the admin I want to access the system dashboard, so that I can manage resources easily. * As the admin, I want to manage students and employees. So that I can add, remove and update them as needed. * As the admin, I want to publish new events happening in the institute. So that those interested parties will be notified. * As the admin, I want add, remove and update books in the library, So that the library will be managed in an efficient way. * As the admin, I want to keep track of all the necessary details of the borrowing information. So that I can prevent all the violations against the terms of the library. * As the admin, I want to calculate the employee salary by adding and subtractions additional payments and charges, So that employee salaries are properly calculated. * As the admin, I want manage inventories. So that all the inventories and additional payments will be properly tracked. * As the admin, I want to calculate the final profit of the institute. So that I can use them to get management decisions in our institute. | 3 |
| 3 | * As a student, I want to access the student profile. So that I can review my progress, exam marks etc. * As a student, I want to be able to post new questions, so that I can get those questions answered by teachers. * As a student I want to check the availability of the certain book via the system, So that I can borrow it. * As a student, I want to access each paper dedicated to each course that I’m following, so that can read articles and Download course materials. * As the student, I want to view the latest events, So that I can participate. * As a student, I want to download my attendance report, so that I can review my own attendance. | 5 |
| 4 | * As an employee, I want to access student information, So that I can manage student by adding, removing and updating them. * As an employee, I want to assign new students to existing courses, So that students participating to a course will be tracked. * As an employee, I want to add new courses, so that student can choose courses from multiple selections. * As an employee, I want to check weather a student has settled down all the payments changed by institute. * As an employee, I want to check the library details and be aware of any violations related to the library rules, So that I can take suitable actions for them. | 4 |
| 5 | * As an authorized user, I want to log in to the system. * As an authorized user, I want to log out from the system. | 2 |
| 6 | * As a teacher, I want to update student progress (by adding exam marks), So that student can review themselves. * As a teacher, I want to publish new articles and post course materials, so that student can download them. | 6 |

**Sprint backlog**

|  |  |  |  |
| --- | --- | --- | --- |
| **Priority** | **Product backlog item** | **User story Id** | **Estimate hours** |
| 1 | **Setup the development environment.**   * Install Node. * Install Visual Studio Code. * Install Postman. * Install main javascript dependencies (Express, BodyParser etc). * Install MySQL.js library. * Install handlebars template engine (ExpressHandlebars). * Install other modules (bcrypt, passport.js). * Install dev-dependencies (Nodemon, live-server, gulp, webpack, babel etc). |  | 2 |
| 2 | **Setup Git and GitHub.**   * Initialize a local git repository. * Push all the files to a remote repository. * Setup a gh-pages branch that hosts the static UI (for client). |  | 1 |
| 3 | **Database design and creation.**  *Following tables will be created.*   * Students * Employees * Events * EventUsers (Bridge) * Books * BooksBorrows (Bridge) * Salaries * Inventories * Exams * ExamResults * Questions * Courses * CourseStudents (Bridge) * CourseQuestions * Answers * Articles (Text and Materials) * CourseAttendance * CoursePayments | 2,3,4,5,6 | 24 |
| 4 | **UI/UX Design**   * Home Page (Static website) * Login page * Admin (employee) dashboard * Application user profile page * Students page * Students form * Employees page * Employees form * Events feed * Events form * Courses page * Courses form * Single course page * General question page * General question form * Inventories (with form) * Articles form * Final profit calculation page * Exams page * Exams form * Exam results page | 1,2,3,4,5,6 | 120  (5 days) |
| 5 | **Responsiveness**   * Write the media queries to make the site responsive. * Use all the best practices such as fluid layouts and responsive images. * Test the UI in different browsers in different screen sizes. |  | 24 |
| 6 | **Express Web Server**   * Define all the http endpoints. * Link the UI with the server. * Test all the routes using **postman.** |  | 144  (6 days) |

**ER Diagram**

