

**CAPSTONE PROJECT REPORT**

**Report 2 – Project Management Plan**

– Ho Chi Minh, September 2023 –

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# I. Record of Changes

| **Date** | **A\* M, D** | **In charge** | **Change Description** |
| --- | --- | --- | --- |
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\*A - Added M - Modified D - Deleted

# II. Project Management Plan

## 1. Overview

### 1.1 Scope & Estimation

| **#** | **WBS Item** | **Complexity** | **Est. Effort (man-days)** |
| --- | --- | --- | --- |
| **1** | **Research and collect requirements** | | |
| 1.1 | Collecting information from customer | Complex | 10 |
| 1.2 | Research about conference management activities | Complex | 10 |
| 1.3 | Research about some existing systems related to conference management | Complex | 10 |
| 1.4 | Drafting the general procedure to manage conference | Complex | 10 |
| **2** | **Set up development environment** | | |
| 2.1 | Set up BE project | Medium | 4 |
| 2.2 | Set up FE project | Medium | 4 |
| **3** | **Initialize database** | | |
| 3.1 | Design database | Complex | 10 |
| 3.2 | Create database from the migration | Medium | 4 |
| **4** | **Authentication and authorization** | | |
| 4.1 | Login | Simple | 2 |
| 4.2 | Logout | Simple | 2 |
| 4.3 | Register account | Simple | 2 |
| **5** | **Initialize conference** | | |
| 5.1 | Create a conference | Medium | 4 |
| 5.10 | Add decision-making criteria | Simple | 2 |
| 5.2 | Configure conference settings | Simple | 2 |
| 5.3 | Add a conference user | Medium | 4 |
| 5.4 | Modify a conference's track list | Medium | 4 |
| 5.5 | Create a track plan | Complex | 10 |
| 5.6 | Update activity timeline | Complex | 10 |
| 5.7 | Configure track settings | Simple | 2 |
| 5.8 | Define a track's subject area list | Simple | 2 |
| 5.9 | Create a submission question | Simple | 2 |
| **6** | **Set up a conference's website content** | | |
| 6.1 | Create a website navbar | Complex | 10 |
| 6.2 | Update a web page content | Complex | 10 |
| 6.3 | Export a website's content | Medium | 4 |
| **7** | **Monitor and manage conference submissions** | | |
| 7.1 | Call for papers | Medium | 4 |
| 7.10 | Suggest reviewers for a submission's reviewing activity | Complex | 10 |
| 7.11 | Assign reviewers for a submission | Medium | 4 |
| 7.12 | Get a reviewer's list of assigned papers | Medium | 4 |
| 7.13 | Submit a review | Medium | 4 |
| 7.14 | Detect review issues | Complex | 10 |
| 7.15 | Aggregate reviews of a submission | Medium | 4 |
| 7.16 | Decide on a paper | Simple | 2 |
| 7.17 | Send decision result notification to authors | Complex | 10 |
| 7.18 | Set up email templates | Medium | 4 |
| 7.19 | Submit a revision | Medium | 4 |
| 7.2 | Submit a conference paper | Complex | 10 |
| 7.3 | Detect submission conflicts of interest | Complex | 10 |
| 7.4 | Declare submission conflicts of interest | Simple | 2 |
| 7.5 | Submit supplementary materials | Complex | 10 |
| 7.6 | Aggregate conference submissions | Complex | 10 |
| 7.7 | Make statistical information about conference submissions | Complex | 10 |
| 7.8 | Desk check a submission | Medium | 4 |
| 7.9 | Make statistical information about conference participation | Complex | 10 |
| **8** | **Prepare conference proceeding** | | |
| 8.1 | Request for camera ready submission | Medium | 4 |
| 8.2 | Notify authors for camera ready submission | Medium | 4 |
| 8.3 | Submit the camera ready version of a submission | Simple | 2 |
| 8.4 | Register papers to the list of manuscripts-expected-to-appear-in-conference-proceeding | Complex | 10 |
| 8.5 | Aggregate conference manuscripts | Complex | 10 |
| 8.6 | Request for presentation submission | Simple | 2 |
| 8.7 | Notify authors for presentation submission | Simple | 2 |
| 8.8 | Submit the presentation of a submission | Medium | 4 |
| **9** | **Integrate conference management's knowledge** | | |
| 9.1 | Track essential activities and tasks required during any conference phase | Complex | 10 |
| 9.1 | Input a lecturer's research profile information | Medium | 4 |
| 9.2 | View a lecturer's research profile | Simple | 2 |
| **10** | **Create research profile** | | |
| 10.1 | Compose Project Introduction | Simple | 2 |
| 10.2 | Compose Project Management Plan | Medium | 4 |
| 10.3 | Compose Software Requirement Specification (SRS) | Complex | 10 |
| 10.4 | Compose System Design Description (SDD) | Complex | 10 |
| 10.5 | Compose System Implementation and Test (SIT) | Complex | 10 |
| 10.6 | Compose System User's Manual | Medium | 4 |
| 10.7 | Compose Final Project Report | Complex | 10 |
| **11** | **Compose reports** | | |
| 11.1 | Review database | Medium | 4 |
| 11.2 | Review admin interface | Simple | 2 |
| 11.3 | Review PC chair interface | Medium | 4 |
| 11.4 | Review author interface | Medium | 4 |
| 11.5 | Review reviewer interface | Simple | 2 |
| **12** | **Review system** | | |
| **Total Estimated Effort (man-days)** | | | **380** |

* Allocated Effect: 4 (members) \* 19 (weeks) \* 5 (days) = 380 man-days

### 1.2 Project Objectives

| **#** | **Testing Stage** | **No. of Defects** | **% of Defect** | **Notes** |
| --- | --- | --- | --- | --- |
| 1 | Integration test | < 25 | 1% |  |
| 2 | System test | < 10 | 1% |  |

### 1.3 Project Risks

| **#** | **Risk Description** | **Impact** | **Possibility** | **Response Plans** |
| --- | --- | --- | --- | --- |
| 1 | The requirement is not fully understood between the customer and the developer team members. | Critical | High | + Hold discussions between the developer team and product owners to better understand the customer's requirements. + Use the product from previous sprint to gather customer's feedback and/or core concepts and plan the work accordingly. |
| 2 | Customers change requirements in terms of the business, and interface during code implementation. | Critical | Medium | + Organize meetings to assess the influence and relevance of customer's requirements change in relation to the finished product, and let the customer choose to keep or discard the changes. |
| 3 | A certain member of the team is forced to leave the team or leave the team due to personal reasons. | Critical | Low | + Scale down the scope of the project + Share the workload among the remaining team member to meet the deadline |
| 4 | Lack of experience or skills in coding and testing the project. Could not find the suitable technique or solution to implement a certain feature. | High | High | Identify the main techniques and the difficult techniques in advance to build a reasonable study plan |
| 5 | Conflict between members when discussing and dividing work, members doing the same work. | Medium | Medium | Consult supervisor directly or through emergency meetings about resolving conflicts between members. |

## 2. Management Approach

## 2.1 Project Process

## The Science Research Activity Support System (SRASS) is developed using the Scrum framework of Agile methodology for collecting requirements, designing, developing, testing, deploying, and maintaining products. We decided to use this model for the following reasons:

## - To implement this project, we need to collect the requirements from FPT University, Ho Chi Minh Campus's Library and Research Department and we have to discuss with the customer a lot. The possibility of changing and updating user requirements is high.

## - Because this project is developed from scratch, it is difficult for everyone to understand the core concepts, general procedure, and specific requirements. As a result, we met with the mentors every week to verify our understanding and implementation of the requirements. Therefore, for this project, each sprint takes 5 days, and the length of our product backlog is 5 months.

## 2.2 Quality Management

## To ensure our product quality, we apply some general rules:

## Using coding convention:

## Class name, variable name, constant name, function name, and file name must be written in English correctly and meaningfully.

## Class name, function name, variable name, and constant name of each language must be written in the right way based on the document (Pascal case, Kebab case, etc.).

## Similar handlers should be written similarly.

## Format code: There must be a space between the variable and the operation.

## Comment Code: Delete unused code, do not comment out that code, comment warning consequences, comment clarify the meaning of the code (if the logic is complicated).

## Integration testing:

## All test cases must be written in Excel with appropriate priority, important modules must be checked first.

## Each module after modification always requires a recheck by running all test cases listed in the test suite.

## System testing:

## Testing the system as a whole to confirm that every feature of the application functions correctly.

## Everything tested must be within software requirements specification (SRS) and after integration testing.

## 

## 2.3 Training Plan

| Training Area | Participants | When, Duration | Waiver Criteria |
| --- | --- | --- | --- |
| .NET | Mai Hoàng Dương,  Hoàng Thị Hoài Thương | Week 1, 7 days | Mandatory |
| ReactJS | Bùi Thế Hiển,  Nguyễn Đặng Trường Anh | Week 1, 7 days | Mandatory |
| Project workflow, Git, GitHub, Azure | Everyone | Week 1, 7 days | Mandatory |
| 3rd parties' services: PayPal, Firebase | Bùi Thế Hiển,  Nguyễn Đặng Trường Anh | Week 1, 7 days | Mandatory |
| Business general procedure | Everyone | Week 1, 7 days | Mandatory |

## 3. Project Deliverables

## 

| # | Sprint | Duration | Notes |
| --- | --- | --- | --- |
| 1 | Sprint 1 | 08/05/2023 - 12/05/2023 | Collect user requirementsTrainingWrite Report 1Plan the project |
| 2 | Sprint 2 | 15/05/2023 - 19/05/2023 | Design database Design UI Set up the project base Write Report 2 |
| 3 | Sprint 3 | 22/05/2023 - 26/05/2023 | Implement the [Initialize planned conference] workflowCreate a conferenceSet up conference websiteConfigure conference's:Track listSubject areas |
| 4 | Sprint 4 | 29/05/2023 - 02/06/2023 | Implement the [Initialize planned conference] workflowConfigure conference's:Submission questionsSubmission settingsDecision-making criteria |
| 5 | Sprint 5 | 05/06/2023 - 09/06/2023 | Implement the [Initialize planned conference] workflowConfigure conference's:Camera-ready settingsRegistration settingsPresentation settingsOther settings |
| 6 | Sprint 6 | 12/06/2023 - 16/06/2023 | Implement the [Monitor and Manage Conference Submission] coreflowSubmit papersDeclare conflicts of interest |
| 7 | Sprint 7 | 19/06/2023 - 23/06/2023 | Implement the [Monitor and ManageConference Submission] coreflowAssign reviewersReview |
| 8 | Sprint 8 | 26/06/2023 - 30/06/2023 | Implement the [Monitor and Manage Conference Submission] coreflowDecide on papersNotify result to authorsWrite Report 3 |
| 9 | Sprint 9 | 10/07/2023 - 14/07/2023 | Implement the [Monitor and Manage Conference Submission] coreflowPreliminary access |
| 10 | Sprint 10 | 17/07/2023 - 21/07/2023 | Implement the [Monitor and Manage Conference Submission] coreflowRevision |
| 11 | Sprint 11 | 24/07/2023 - 28/08/2023 | Implement the [Prepare conference proceeding] coreflowRequest for camera-ready submissionSubmit camera-readyRegister papers |
| 12 | Sprint 12 | 31/07/2023 - 04/08/2023 | Implement the [Prepare conference proceeding] coreflowRequest for presentation submissionSubmit presentation |
| 13 | Sprint 13 | 07/08/2023 - 11/08/2023 | Implement the [Prepare conference proceeding] coreflowProduce statistical summaries and reports of a conferenceWrite Report 4 |
| 14 | Sprint 14 | 14/08/2023 - 18/08/2023 | Implement the research profile feature |
| 15 | Sprint 15 | 21/08/2023 - 25/08/2023 | Implement integration testMeet the customer to demo full project’s core flow |
| 16 | Sprint 16 | 28/08/2023 - 01/09/2023 | Implement system testWrite Report 5 |
| 17 | Sprint 17 | 04/09/2023 - 08/09/2023 | ReleaseWrite Report 6 |
| 18 | Sprint 18 | 11/09/2023 - 15/09/2023 | Review all features related to projectsWrite Report 7 |
| 19 | Sprint 19 | 18/09/2023 - 22/09/2023 | Prepare for final presentation |

## 

## 4. Responsibility Assignments

**4.1 Team & Structures**

| **Role** | **Fullname** |
| --- | --- |
| Product Owner | Kiều Trọng Khánh |
| Dr. Đặng Ngọc Minh Đức |
| Đinh Trường Lâm |
| Scrum Master | Hoàng Thị Hoài Thương |
| Developer Team | Hoàng Thị Hoài Thương |
| Mai Hoàng Dương |
| Bùi Thế Hiển |
| Nguyễn Đặng Trường Anh |

**4.2 Responsibilities**

*D~Do; R~Review; S~Support; I~Informed; - Omitted*

| **Sprint** | **Activity** | **T**  **H**  **U**  **O**  **N**  **G**  **H**  **T**  **H**  **S**  **E**  **1**  **4**  **0**  **0**  **8**  **7** | **H**  **I**  **E**  **N**  **B**  **T**  **S**  **E**  **1**  **5**  **0**  **7**  **6**  **3** | **A**  **N**  **H**  **N**  **D**  **T**  **S**  **E**  **1**  **5**  **0**  **6**  **4**  **0** | **D**  **U**  **O**  **N**  **G**  **M**  **H**  **S**  **E**  **1**  **4**  **0**  **1**  **9**  **6** |
| --- | --- | --- | --- | --- | --- |
| Sprint 1 | Collect user requirements | D | D | D | D |
| Training | D | I | I | I |
| Write Report 1 | D | I | I | I |
| Plan the project | D | I | I | I |
| Sprint 2 | Design database | D | I | I | D |
| Design UI | I | D | D | I |
| Set up the project base | D | D | D | D |
| Write Report 2 | D | S | S | S |
| Sprint 3 | Implement API for [Create a conference] feature | D | I | I | S |
| Implement UI for [Create a conference] feature | I | D | S | I |
| Implement API for [Set up conference website] feature | I | I | I | D |
| Implement UI for [Set up conference website] feature | I | D | S | I |
| Implement API for [Configure conference's track list] feature | D | I | I | S |
| Implement UI for [Configure conference's track list] feature | I | D | I | I |
| Implement API for [Configure conference's subject areas] feature | D | I | I | S |
| Implement UI for [Configure conference's subject areas] feature | I | D | I | I |
| Sprint 4 | Implement API for [Configure conference's submission questions] feature | I | I | I | D |
| Implement UI for [Configure conference's submission questions] feature | I | D | S | I |
| Implement API for [Configure conference's submission settings] feature | D | I | I | S |
| Implement UI for [Configure conference's submission settings] feature | I | D | S | I |
| Implement API for [Configure conference's decision-making criteria] feature | D | I | I | I |
| Implement UI for [Configure conference's decision-making criteria] feature | I | D | S | I |
| Sprint 5 | Implement API for [Configure conference's camera-ready settings] feature | D | I | I | S |
| Implement UI for [Configure conference's camera-ready settings] feature | I | D | S | I |
| Implement API for [Configure conference's registration settings] feature | D | I | I | D |
| Implement UI for [Configure conference's registration settings] feature | I | S | D | I |
| Implement API for [Configure conference's presentation settings] feature | D | I | I | S |
| Implement UI for [Configure conference's presentation settings] feature | I | S | D | I |
| Sprint 6 | Implement API for [Submit papers] feature | D | I | I | S |
| Implement UI for [Submit papers] feature | I | D | S | I |
| Implement API for [Declare conflicts of interest] feature | D | I | I | S |
| Implement UI for [Declare conflicts of interest] feature | I | I | D | I |
| Sprint 7 | Implement API for [Assign reviewers] feature | D | I | I | D |
| Implement UI for [Assign reviewers] feature | I | S | D | I |
| Implement API for [Review] feature | D | I | I | S |
| Implement UI for [Review] feature | I | S | D | I |
| Sprint 8 | Implement API for [Decide on papers] feature | D | I | I | S |
| Implement UI for [Decide on papers] feature | I | S | D | I |
| Implement API for [Notify result to authors] feature | I | I | I | D |
| Implement UI for [Notify result to authors] feature | I | D | D | I |
| Write Report 3 | D | D | D | D |
| Sprint 9 | Implement API for [Preliminary access] feature | D | I | I | I |
| Implement UI for [Preliminary access] feature | I | I | D | I |
| Sprint 10 | Implement API for [Revision] feature | D | I | I | S |
| Implement UI for [Revision] feature | I | D | S | I |
| Sprint 11 | Implement API for [Request for camera-ready submission] feature | D | I | I | D |
| Implement UI for [Request for camera-ready submission] feature | I | D | S | I |
| Implement API for [Submit camera-ready] feature | D | I | I | D |
| Implement UI for [Submit camera-ready] feature | I | D | S | I |
| Implement API for [Register papers] feature | D | I | I | D |
| Implement UI for [Register papers] feature | I | D | I | I |
| Sprint 12 | Implement API for [Request for presentation submission] feature | D | I | I | S |
| Implement UI for [Request for presentation submission] feature | I | I | D | I |
| Implement API for [Submit presentation] feature | D | I | I | S |
| Implement UI for [Submit presentation] feature | I | D | I | I |
| Sprint 13 | Implement API for [Produce statistical summaries and reports of a conference] feature | D | I | I | I |
| Implement UI for [Produce statistical summaries and reports of a conference] feature | I | I | D | I |
| Write report 4 | D | S | D | S |
| Sprint 14 | Implement API for [Research profile feature] feature | I | I | I | D |
| Implement UI for [Research profile feature] feature | I | D | I | I |
| Sprint 15 | - Implement integration test | I | D | D | I |
| - Meet the customer to demo full project’s core flow | D | D | D | D |
| Sprint 16 | - Implement system test | S | D | D | S |
| - Write Report 5 | I | S | D | I |
| Sprint 17 | - Release | S | D | D | S |
| - Write Report 6 | I | S | D | I |
| Sprint 18 | - Review all features related to projects | D | D | D | D |
| - Write Report 7 | D | D | D | D |
| Sprint 19 | - Prepare for final presentation | D | D | D | D |

## 5. Project Communications

| **Communication Item** | **Who/ Target** | **Purpose** | **When, Frequency** | **Type, Tool, Method(s)** |
| --- | --- | --- | --- | --- |
| Working in group | Team members | * Report code progress and documentation progress. * Discuss issues about requirements from customers, and technical when implementing code. * Prepare demos and questions for the next mentor and client meetings. * Division of work. | 3 days/week | Online |
| Mentoring and Support | Team members and supervisor | * Review work progress, including code and documentation. * Answer questions related to requirements and techniques. * Control project deadlines, and ensure the project runs on schedule. | 2 days/week | Offline |
| Project review | Team members and stakeholders | * Review work progress. | 1 day/week | Online, Offline |

## 6. Configuration Management

**6.1 Document Management**

* Use Google Drive for collaboration.
* Upload diagrams, images, media,... to categorized folders for easy management.

Link: <https://drive.google.com/drive/folders/1ij4kYIUDGZqnxUn9oEAzKrtpD2Hasl2m?usp=sharing>

**6.2 Source Code Management**

* Use GitHub.

Front-end link: [Hien-BT01/capstone-client: SE Project Capstone (github.com)](https://github.com/Hien-BT01/capstone-client)  
Back-end link: [ThuongHoang456189/Sras.PublicCoreflow: Public coreflow for sras (github.com)](https://github.com/ThuongHoang456189/Sras.PublicCoreflow)

**6.3 Meeting minutes**

* Use Google Drive to store meeting minutes.

Link:<https://drive.google.com/drive/folders/1ZomGq0u7XxV0dTq65UzkGY6TgC6pdrZj?usp=sharing>

**6.4 Tools & Infrastructure**

| **Category** | **Tools / Infrastructure** |
| --- | --- |
| **Technology** | ReactJS (Node v18.17.1, React v17.0.2), C# (.NET 7.0) |
| **Database** | SQL Server 2019, FireBase |
| **IDEs/Editors** | Visual Studio Code v1.82.2, Visual Studio 2022 |
| **Diagramming** | StarUML, DrawIO, Lucidchart |
| **Documentation** | Microsoft Office, Google Docs/Sheets |
| **Version Control** | GitHub (Source Codes), GitKraken (Source Codes), Google Drive (Documents) |
| **Deployment server** | Azure App Service |
| **Project management** | Google Sheets |