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**NIT6150 Advanced Project**

**Project Meeting Minutes**

**Healthcare Chatbot System**

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**Team Leader:** Jitendra Shrestha (s8104215)

**Team Member:** Pranish Acharya (s8100698)

**Client:** Holroyd Private Hospital

**Supervisor:** Fakhra Jabeen

VU Sydney

**Coordinator**: Dr. Alex Wenjie Ye

**Project Meeting Minutes**

**Project Members:**

* **Jitendra Shrestha**
* Pranish Acharya

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| **Date**: | | 31st July, 2024 | | **Time**: | 15:00 | | | **Location**: | | Inside Classroom |
| **1. Kickoff Meeting** | | | | | | | | | | |
| **Agenda**:  - Introduction  - Project Overview  - Project Scope and deliverables  - Work division of project proposal | | | | | | | | | | |
| **Attendance** | | | | | | | | | | |
| **Present** | | | | | **Absent** | | | | | |
| Both | | | | | Nil | | | | | |
| **Meeting Brief Summary** | | | | | | | | | | |
| **Introduction:**  - Self Introduction  - Bring topics and get confirmed by supervisor  - Find out each members strength on the chosen topic  - Search the project on scholar and discussed on those  - Discussed on SDLC | | | | | | | | | | |
| **Project Overview:**  - Discussed the selected chatbot system topic  - Discussed types of chatbot system  - Finalized the objectives and purpose | | | | | | | | | | |
| **Project Scope and Deliverables:**  - Defined the scope which we will be working on it  - Searched for the deliverables required for project | | | | | | | | | | |
| **Work division of project proposal:**  - Introduction, Background and client profile is completed on surface level  - Purposes and Objectives, Scope and Exclusion, Assumptions and constraints will be done by Jitendra  - Deliverables, Schedule, budget will be done by Pranish  - Will merge our contribution and review once before submission by both | | | | | | | | | | |
| **AOB:**  - Nil. | | | | | | | | | | |
| **Next Meeting** | | | | | | | | | | |
| **Date**: | 7th August, 2024 | | **Time**: | | | 14:00 | **Location**: | | Inside Classroom | |
| This meeting minute was prepared by Jitendra. | | | | | | | | | | |

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| **Date**: | | 7th August, 2024 | | **Time**: | 14:00 | | | **Location**: | | Inside Classroom |
| **2. Requirement Gathering** | | | | | | | | | | |
| **Agenda**:  - Progress of Project Proposal  - Any challenges in proposal  - Feasibility Study | | | | | | | | | | |
| **Attendance** | | | | | | | | | | |
| **Present** | | | | | **Absent** | | | | | |
| Both | | | | | Nil | | | | | |
| **Meeting Brief Summary** | | | | | | | | | | |
| **Progress of Project Proposal:**  - Introduction, Purposes and Objectives, Scope and Exclusion are completed  - Deliverables and schedule are completed | | | | | | | | | | |
| **Any challenges in proposal:**  - Discussed the challenges might be on real data feeding for chatbot  - Also, for the budget, estimated the real project cost | | | | | | | | | | |
| **Feasibility Study**:  - Can be developed using python and NLP  - Will be working on limited data so every area will not be covered | | | | | | | | | | |
| **AOB:**  - Nil. | | | | | | | | | | |
| **Next Meeting** | | | | | | | | | | |
| **Date**: | 14th August, 2024 | | **Time**: | | | 18:00 | **Location**: | | Outside Classroom | |
| This meeting minute was prepared by Pranish. | | | | | | | | | | |

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| **Date**: | | 14th August, 2024 | | **Time**: | 18:00 | | | **Location**: | | Outside Classroom |
| **3. Design Phase 1 Meeting** | | | | | | | | | | |
| **Agenda**:  - Development Methodology  - Functional and Non-Functional Requirements  - Use Case Diagrams  - User Interfaces  - Tools discussion for creating diagrams  - Task Allocation | | | | | | | | | | |
| **Attendance** | | | | | | | | | | |
| **Present** | | | | | **Absent** | | | | | |
| Both | | | | | Nil | | | | | |
| **Meeting Brief Summary** | | | | | | | | | | |
| **Development Methodology:**  - Using Agile Approach  - Testing at same time while development  - Breaking down the features and combine  - Issue can be resolved and modify the features | | | | | | | | | | |
| **Functional and Non-Functional Requirements:**  - Functional Requirements   * Create ER diagram * Create Functional Decomposition Diagram * Define the data (User, Appointment, Doctor)   - Non-Functional Requirements   * Look and Feel Requirements * Performance Requirements * Maintainability and support Requirements * Security Requirements * Cultural and Political Requirements * Legal Requirements | | | | | | | | | | |
| **Use Case Diagrams**:  - Overall use case Diagram  - Deep dive into the functionality on each function from overall use case | | | | | | | | | | |
| **User Interfaces**:  - Discussion on the wireframes for the chatbot  - Discussion on the wireframes for booking an appointment  - Discussion on Login Page wireframe | | | | | | | | | | |
| **Tools discussion for creating diagrams:**  - Draw.io will be used for diagrams (https://app.diagrams.net/)  - WBS tool for Gantt chart (https://www.workbreakdownstructure.com/) | | | | | | | | | | |
| **Task Allocation:**   |  |  | | --- | --- | | **Jitendra** | **Pranish** | | * Creating wireframes for chatbot UI, login in UI * Non-Functional requirements * Creating Overall Use case and multiple level Use case * Flow chart diagram | * Functional Requirements * Create ER Diagrams * Sequence Diagram * Activity Diagram * Class Diagram | | | | | | | | | | | |
| **AOB:**  - Nil. | | | | | | | | | | |
| **Next Meeting** | | | | | | | | | | |
| **Date**: | 16th August, 2024 | | **Time**: | | | 13:00 | **Location**: | | Inside Classroom | |
| This meeting minute was prepared by Jitendra. | | | | | | | | | | |

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| **Date**: | | 16th August, 2024 | | **Time**: | 13:00 | | | **Location**: | | Inside Classroom |
| **4. Design Phase 2 Meeting** | | | | | | | | | | |
| **Agenda**:  - Progress on the assigned tasks  - Issues on design  - System Navigation | | | | | | | | | | |
| **Attendance** | | | | | | | | | | |
| **Present** | | | | | **Absent** | | | | | |
| Both | | | | | Nil | | | | | |
| **Meeting Brief Summary** | | | | | | | | | | |
| **Progress on the assigned tasks:**  - Completed the overall use case diagram  - Completed wireframes for login page UI  - Completed the Flow chart diagram, sequence diagram | | | | | | | | | | |
| **Issues on design**:  - Discussion on wireframes for chatbot  - Go through the chatbot from different websites and checked the UI  - Planned to implement the chatbot for quicker and correct response | | | | | | | | | | |
| **System Navigation**:  - After creating wireframes, decided the system navigation  - Users doesn’t need to login for accessing chatbot  - Users need login to save their data and book appointment  - Doctors can add prescription after looking the patients  - Admin can manage the patients and doctors | | | | | | | | | | |
| **AOB:**  - Nil. | | | | | | | | | | |
| **Next Meeting** | | | | | | | | | | |
| **Date**: | 21st August, 2024 | | **Time**: | | | 13:00 | **Location**: | | Inside Classroom | |
| This meeting minute was prepared by Jitendra. | | | | | | | | | | |

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| **Date**: | | 21th August, 2024 | | **Time**: | 13:00 | | | **Location**: | | Inside Classroom |
| **5. Discussion on System analysis and Design** | | | | | | | | | | |
| **Agenda**:  - The meeting was initiated by Pranish to discuss the ongoing project regarding system analysis and design for Health Care Chatbot system.  - The objective is to finalize the functional and non-functional requirements and to develop a high-level design for the new system. | | | | | | | | | | |
| **Attendance** | | | | | | | | | | |
| **Present** | | | | | **Absent** | | | | | |
| Both | | | | | Nil | | | | | |
| **Meeting Brief Summary** | | | | | | | | | | |
| **Progress of System Analysis and Design:**   * Current System Architecture. * Functional requirements * Non-functional requirements * Data Flow Diagram * Wireframes * Database design | | | | | | | | | | |
| **Any challenges in proposal:**  - Discussed the challenges might be on database design and data flow diagram  - Also, for Architecture Design. | | | | | | | | | | |
| **AOB:**  - Nil. | | | | | | | | | | |
| **Next Meeting** | | | | | | | | | | |
| **Date**: | 23th August, 2024 | | **Time**: | | | 18:00 | **Location**: | | Outside Classroom | |
| This meeting minute was prepared by Pranish. | | | | | | | | | | |

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| **Date**: | | 23th August, 2024 | | **Time**: | 18:00 | | | **Location**: | | Outside Classroom |
| **6. Discussion on System analysis and Design** | | | | | | | | | | |
| **Agenda**:  - The meeting was initiated by Jitendra to discuss the ongoing progress regarding system analysis and design for Health Care Chatbot system.  - The objective is to finalize the System Analysis and Design Part before the deadline. | | | | | | | | | | |
| **Attendance** | | | | | | | | | | |
| **Present** | | | | | **Absent** | | | | | |
| Both | | | | | Nil | | | | | |
| **Meeting Brief Summary** | | | | | | | | | | |
| **Progress of System Analysis and Design:**   * Current System Architecture * ERD * Data Dictionary * Jitendra presented how data will be processed through the system. * Pranish proposed an architecture based on LSTM model, SVM, explaining the use of specific technologies such as Rasa framework. * Jitendra discussed mockups for the user interface. Feedback was given on improving use case diagram, gantt chart and ERD. * Discussed on Project Cost Estimation, Data privacy | | | | | | | | | | |
| **Any challenges in System analysis and design:**  - As the project progresses, new features which can lead to scope creep.  - A tight timeline may not allow enough time for thorough analysis or testing, leading to errors in the final system design  - Design complexities or unexpected changes can lead to cost overruns. | | | | | | | | | | |
| **Feasibility Study**:  - Can be secure data using  - Will be working on limited data so every area will not be covered. | | | | | | | | | | |
| **AOB:**  - Nil. | | | | | | | | | | |
| **Next Meeting** | | | | | | | | | | |
| **Date**: | 28th August, 2024 | | **Time**: | | | 18:00 | **Location**: | | Outside Classroom | |
| This meeting minute was prepared by Pranish. | | | | | | | | | | |

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| **Date**: | | 28th August, 2024 | | **Time**: | 13:00 | | | **Location**: | | Outside Classroom |
| **7. Discussion on Development of project** | | | | | | | | | | |
| **Agenda**:  - Introduction to Django and Rasa Frameworks  - Define Project Deliverables and Work Division  - Setup Development Environment and Tools | | | | | | | | | | |
| **Attendance** | | | | | | | | | | |
| **Present** | | | | | **Absent** | | | | | |
| Both | | | | | Nil | | | | | |
| **Meeting Brief Summary** | | | | | | | | | | |
| **Progress of System Development:**   * Discussion of Django’s role as the web framework and Rasa as the NLP engine for chatbot responses. * Pranish will handle the integration of Rasa with Django for conversational flows. * Jitendra will develop user authentication, manage patient data storage, and oversee database security. * Pranish will focus on training the Rasa chatbot for symptom checking. * Environments: Python 3.8, Django 4.0, Rasa 3.0. | | | | | | | | | | |
| **Any challenges in Development:**   * Challenge integrating real-time feedback from Rasa into Django UI for chatbot. * Resolved by using Django Channels for WebSocket integration. | | | | | | | | | | |
| **Feasibility Study**:  - Can be developed using rasa and Django chatbot.  - Will be working on limited data so every area will not be covered. | | | | | | | | | | |
| **AOB:**  - Nil. | | | | | | | | | | |
| **Next Meeting** | | | | | | | | | | |
| **Date**: | 4th September, 2024 | | **Time**: | | | 12:00 | **Location**: | | Inside Classroom | |
| This meeting minute was prepared by Pranish. | | | | | | | | | | |

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| **Date**: | | 4th September, 2024 | | **Time**: | 12:00 | | | **Location**: | | Inside Classroom |
| **8. Discussion on Development and Testing and** | | | | | | | | | | |
| **Agenda**:   * System finalization * Testing strategies and procedures * Bug fixing and improvements | | | | | | | | | | |
| **Attendance** | | | | | | | | | | |
| **Present** | | | | | **Absent** | | | | | |
| Both | | | | | Nil | | | | | |
| **Meeting Brief Summary** | | | | | | | | | | |
| **Progress of System Development:**   * The healthcare chatbot system is fully integrated with Rasa and Django. * All essential features such as appointment scheduling, symptom checking, user authentication, and patient-doctor interaction have been implemented. * Both manual and automated testing have been completed. * Unit tests covered Django models and views, while Rasa chatbot underwent functional tests for intent recognition and conversational flow accuracy. * Bugs found in edge cases of patient data input were fixed. | | | | | | | | | | |
| **Any challenges in Development:**   * None | | | | | | | | | | |
| **AOB:**  - Nil. | | | | | | | | | | |
| **Next Meeting** | | | | | | | | | | |
| **Date**: | 10th September, 2024 | | **Time**: | | | 14:00 | **Location**: | | Outside Classroom | |
| This meeting minute was prepared by Jitendra. | | | | | | | | | | |

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| **Date**: | 10th September, 2024 | **Time**: | 14:00 | **Location**: | Outside Classroom |
| **2. Discussion on System analysis and Design** | | | | | |
| **Agenda**:   * Finalizing system documentation * User manual preparation * Project report completion | | | | | |
| **Attendance** | | | | | |
| **Present** | | | **Absent** | | |
| Both | | | Nil | | |
| **Meeting Brief Summary** | | | | | |
| **Progress of System Development:**   * All technical aspects, including system architecture, APIs, database schema, and user interaction flows, have been documented. * User manual includes instructions for using the chatbot, scheduling appointments, and managing profiles. * The final project report is almost complete, including project objectives, development phases, and challenges faced. * Documentation will be submitted before the deadline. | | | | | |
| **Any challenges.**   * None | | | | | |
| **AOB:**  - Nil. | | | | | |
| This meeting minute was prepared by Jitendra. | | | | | |