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Course code: INFO8686  
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Date distributed: September 12th 2023  
Due Date: september 23rd 2023**

Capstone Project Assignment 2

**2023**

**DECLARARATION:**  
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# **PROJECT CHARTER**

|  |  |  |
| --- | --- | --- |
| **Company Name:** Fanta5tic Solutions – Turning Imagination into Innovation | | |
| **Company Logo: A logo with text overlay  Description automatically generated** | | |
| **Client Name:** Royal Bank of Canada (RBC) | | |
| **Project Name:** MortgageBotX | | |
| **Project Manager:** Prashanth Patil, 519-731-8565, [Ppatil9714@conestogac.on.ca](mailto:Ppatil9714@conestogac.on.ca) | | |
| **Roles:** | | |
| ***Name*** | ***Role*** | ***Contact Information*** |
| Prashanth Patil | Project Manager | [Ppatil9714@conestogac.on.ca](mailto:Ppatil9714@conestogac.on.ca) |
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| Prabhjeet Singh | Business Analyst | [Psingh3689@conestogac.on.ca](mailto:Psingh3689@conestogac.on.ca) |
| Vedika Singh | Business Analyst | [Vsingh5316@conestogac.on.ca](mailto:Vsingh5316@conestogac.on.ca) |
| **Responsibilities:**  **Prashanth Patil, Manager-**   * Leading and managing the entire project. * Defining the project's goals, deliverables, and scope. * Creating and managing the project timeline and plan. * Managing resources and keeping an eye on the project's development. * Sharing project status with stakeholders and communicating. * Making sure the project is finished on schedule.   **Chetan Dashrathlal Patel, SME-**   * Offering knowledge around the project that is pertinent (mortgage services). * Helping define the objectives and needs of the project. * Providing advice and insights. * Ensuring alignment with industry best practices by working with the project team. * Checking the project deliverables for correctness and industry compliance.   **Parth Arvindbhai Patel, Business Analyst-**   * Examining the needs of the virtual mortgage assistant from a commercial perspective. * User stories and approval criteria should be defined in collaboration with stakeholders. * Keeping track of corporate procedures and processes. * Aiding in locating potential areas for process improvement.   **Vedika Singh, Business Analyst-**   * Joining forces with Parth to compile and evaluate the business needs. * Creating and keeping up-to-date project documentation. * Helping in the execution of usability tests and customer interviews. * Checking that the project's deliverables match the established criteria. * Aiding the Project Manager, Prashanth, in monitoring the status of the project.   **Prabhjeet Singh, Business Analyst-**   * Working together with Vedika and Parth to compile and evaluate business needs. * Helping with the documentation of acceptance criteria and user stories. * To collect input, organize and communicate with stakeholders. * Aiding with project reporting and documentation upkeep. | | |
| **Conduct Guidelines:**   * We promise to always treat each member of the project team with professionalism and respect. * Our goal is to create a friendly, cooperative work atmosphere where each team member's ideas are highly valued, and their efforts are appropriately acknowledged. * Any private information discussed among our team members will be always kept secret.   **Participation:**   * The value of teamwork is strong, and each member's active participation is essential to the project's success. * We are steadfast in our resolve to foster an inclusive environment where every team member—regardless of history, identity, or perspective—feels welcomed, respected, and appreciated. * Responsibility is essential, and each team member is accountable for achieving their own deadlines and carrying out their given tasks. If difficulties emerge, we urge prompt contact so that we can cooperate to discover solutions.   **Communication:**   * We encourage politeness and helpfulness when communicating ideas, worries, or comments. We also advocate open and honest communication. * A fundamental notion is active listening, which involves paying close attention and refraining from interjecting when someone is speaking in order to make sure that all ideas are heard and understood. * To prevent misconceptions and give pertinent information, we try for clear and succinct communication using suitable channels including meetings, chats, and emails.   **Problem Solving:**   * When faced with obstacles, we adopt collaborative strategies, working together to find answers rather than placing blame, putting an emphasis on discovering the underlying problems and creating workable solutions. * Data-driven decision-making relies on facts and evidence to remove biases and promote unbiased problem-solving. * We see obstacles as chances for progress, and after putting solutions in place, we evaluate their success and make the necessary modifications for ongoing improvement. | | |
| **Academic Integrity Affirmation**  We confirm that this work is our own and we have not copied from internet, other student(s), or any other sources. We followed the individual/group work guidelines specified for completing this project. Our work is in complete adherence with Conestoga College’s academic integrity policy.   |  |  |  | | --- | --- | --- | | ***Name*** | ***Signature*** | ***Date*** | | Prashanth Patil | *Prashanth Patil* | 10th September 2023 | | Chetan Dashrathlal Patel | *Chetan Dashrathlal Patel* | 10th September 2023 | | Parth Arvindbhai Patel | *Parth Arvindbhai Patel* | 10th September 2023 | | Vedika Singh | *Vedika Singh* | 10th September 2023 | | Prabhjeet Singh | *Prabhjeet Singh* | 10th September 2023 | | | |
|  | | |

## **Executive Summary:**

The goal of the RBC Virtual AI Mortgage Assistant Chatbot, MortgageBotX, Project is to completely transform the way customers interact with RBC's mortgage services. The project aims to develop an intelligent chatbot that will offer 24/7 help, expedite mortgage enquiries, and boost general customer happiness by utilizing cutting-edge AI and natural language processing technology. This initiative supports RBC's dedication to innovation and customer-focused solutions.

## **Project Purpose/Justification:**

This project's main goal is to make RBC's mortgage services more effective and efficient while giving clients a simple and easy method to contact the bank. RBC hopes to shorten response times, enhance customer service, and establish itself as a pioneer in digital banking solutions by developing an AI-powered chatbot. The necessity to maintain competitiveness in the quickly changing financial services sector is what inspired this idea.

## **Project Description:**

The RBC Virtual AI Mortgage Assistant Chatbot, MortgageBotX, Project entails the creation and deployment of an intelligent chatbot that can help clients with tasks and questions relating to mortgages. Natural language processing will be used by the chatbot to comprehend and instantly answer to client inquiries. It will be seamlessly integrated into RBC's current systems and distribution channels to offer help to both mortgage applicants and current clients.

### **Project Objectives and Success Criteria:**

**OBJECTIVES:**

* Create an AI chatbot with complete functionality for mortgage services.
* Providing 24/7 service and speedier response times will increase client satisfaction.
* Provide correct information while streamlining the mortgage application process.
* Promote RBC as a pioneer in innovative digital banking.

**SUCCESS CRITERIA:**

* *Within the first year, cut the average response time for consumer enquiries by 20%.*
* *Obtain a least 4 out of 5 customer satisfaction rating in surveys conducted after deployment.*
* *Within six months, increase chatbot usage for mortgage-related activities by 30%.*
* *Launch the chatbot on schedule and under budget without sacrificing quality.*

### **Requirements:**

High-level project prerequisites include the following:

* Creation of a chatbot with artificial intelligence that can process natural language.
* Integration with the systems and channels already in place at RBC.
* Adherence to legal and data security requirements.
* A chatbot interface that is easy to use for both clients and Mortgage Specialists.

### **Constraints:**

Among the Project Limitations are:

* Limits on the development and implementation budget.
* Time constraints to guarantee a prompt launch.
* Resources are readily available, including IT infrastructure and AI skills.

# **PROJECT SCOPE STATEMENT**

This project's boundaries, goals, and essential elements are described in this project scope statement, which helps everyone understand the project's objectives and constraints.

## **Product Scope Description:**

The following will be covered under this project:

* Study and analysis of companies and technology for AI chatbots.
* The viability and usefulness of AI chatbots for RBC's mortgage services are evaluated.
* Creating a suggestion proposal that details the ideal AI chatbot solution.
* ROI forecasts and a cost-benefit analysis of the suggested remedy.
* A thorough implementation plan with potential timeframes and benchmarks.

## **Product Acceptance Criteria:**

When the following requirements are satisfied, the project will be deemed finished:

* RBC is given a well-documented suggestion proposition from an AI chatbot.
* The feasibility and advantages of the suggested solution are shown by the cost-benefit analysis.
* The ROI forecasts match RBC's financial goals.
* A specific timeframe and set of objectives are included in an implementation plan.
* The recommended plan is approved by RBC decision-makers.

## **Project Deliverables:**

Throughout the analysis, the following deliverables will be provided to the client:

* Project Charter
* Stakeholder Analysis Report
* Requirements Specification
* Solution Design Documents
* Monitoring and Optimization Reports
* Regular Status updates and Progress Reports
* Interactive prototypes and demos of the Chatbot
* User manuals and training materials for end-users (if applicable)
* Recommendation proposal from an AI chatbot.
* Report on a cost-benefit analysis.
* Report on ROI projections.
* Document for the implementation strategy.
* RBC Presentation Materials.

## **Project Exclusions:**

The following is excluded from the project-

* The AI chatbot's actual development or implementation.
* Technical specs or code in detail.
* Choosing or purchasing vendors or technologies.
* The implementation of the plan.

## **Project Assumptions:**

The following presumptions are being used by the project team and stakeholders-

* For mortgage services, RBC is open to investigating AI chatbot options.
* RBC will provide access to the necessary data and insights.
* The budget allotted for the installation of AI chatbots will be decided individually.
* During implementation, needs for legal and regulatory compliance will be addressed.

## **Project In-scope:**

* Investigation and Assessment of companies and technology for AI chatbots.
* Analysis of RBC's needs for mortgage services.
* Creation of a thorough AI chatbot suggestion idea.
* The ability to integrate with RBC's current systems should be considered.
* Cost analysis, which includes budget estimations and ROI forecasts.
* Creation of an implementation plan including deadlines and checkpoints.

## **Project Out-scope:**

* The AI chatbot's actual development or implementation.
* Code development or precise technological standards.
* Procurement or the choice of vendors or technology.
* The implementation of the recommendation's plan.

# **PLAN OF WORK:**

The project contains multiple phases, each with an expected timeline, to offer an AI chatbot solution to RBC. The timelines are estimates and may change based on the project team's productivity and any unforeseen circumstances. Here is the project's overall schedule of operations:

|  |  |  |
| --- | --- | --- |
| PHASE | TASKS | ESTIMATED TIMEFRAME |
| Project Initiation Phase | 1. Defining Project Objectives 2. Identifying Stakeholders 3. Establishing Project Team 4. Developing Project Charter | 4 Weeks |
| Project Planning Phase | 1. Conducting Market Research 2. Project Scope and Boundaries 3. Project Schedule 4. Budget Planning 5. Risk Assessment | 4 Weeks |
| Requirements Gathering | 1. Gathering RBC’s Requirements 2. Stakeholder Interviews 3. Identifying Technical Constraints 4. Legal and Regulatory Requirements | 3 Weeks |
| Solution Evaluation | 1. Researching AI Chatbot Technologies 2. Evaluating Vendor Options 3. Cost-Benefit Analysis | 4 Weeks |
| Recommendation Development | 1. Recommendation Proposal Document 2. Defining Implementation Strategy 3. ROI Analysis 4. Drafting Project Plan | 4 Weeks |
| Presentation to RBC | 1. Preparing Presentation Materials 2. Scheduling Meeting with RBC Decision-Makers 3. Present AI Chatbot Recommendation | 3 Weeks |
| Feedback and Revisions | 1. Gathering Feedback from RBC 2. Revising Recommendations 3. Addressing Q&As | 2 Weeks |
| Project Closure | 1. Obtaining RBC’s Decision and Approval 2. Documenting Project Outcomes 3. Handing over documents to RBC | 3 Weeks |

The key project phases are described in this plan of work, together with the anticipated completion dates for each step. For us to ensure that the project is successfully completed within the anticipated timeframe, it is crucial to regularly monitor progress, modify schedules as necessary, and keep excellent communication with RBC throughout the project.

# **STAKEHOLDERS FOR THE PROJECT**

Stakeholders for the MortgageBotX Project include:

* RBC Management
* RBC Customers
* Mortgage Specialists
* IT Department
* Legal and Compliance Teams
* RBC Employees
* Technology Partners

More details about the Stakeholders are included in the ***Stakeholder Management Strategy*** ***Document***.

# **RACI MATRIX:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Task/Activity** | **Prashanth Patil (Project Manager)** | **Chetan Patel (Subject Matter Expert)** | **Parth Arvindbhai Patel (Business Analyst)** | **Vedika Singh (Business Analyst)** | **Prabhjeet Singh (Business Analyst)** |
| Project Charter | A, R | C | C | I | I |
| Project Scope Statement | A, R | C | C | I | R |
| Identifying Stakeholders | A, R | C | R | R | I |
| Stakeholder Management Strategy | A, R | C | A | I | C |
| Progress Status Report | A, R | C | I | C | I |
| Phases of Work | A, R | C | R | C | I |

Responsible (R): Those who put forth the effort necessary to do the job.

Accountable (A): The person ultimately responsible for the accomplishment or failure of the endeavor.

Consulted (C): Those whose opinions are sought for and who are generally subject matter experts.

Informed (I): Those who are kept informed of developments and results but are not actively involved in the task's accomplishment.

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