Functional Requirement Document

# Project Title: Econestoga Student Assistant Chatbot (ESAC)

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# 1.0 Introduction

The Econestoga Student Assistant Chatbot (ESAC) aims to facilitate efficient and precise information retrieval for students regarding academic and campus-related inquiries.

## 1.1 Purpose

To create an interactive, accurate, and user-friendly information retrieval system using a chatbot interface to enhance the student experience.

## 1.2 Scope

- Real-time information provision about academic schedules, events, etc.  
- Interactive user interface for efficient information retrieval.  
- Personalized user interactions and notifications.

## 1.3 Team

|  |  |  |
| --- | --- | --- |
| Name | Role | Email/Phone |
| JORGE SABOGAL | Python Developer/Data Engineer/ML & Chatbot Implementation | jsabogaltamayo6485@conestogac.on.ca |
| JOEL MENDONSA | Python Developer | Jmendonsa8141@conestogac.on.ca |
| MOULYA BANGALORE PRADEEP | Python Developer | mpradeep3556@conestogac.on.ca |

# 2. Functional Requirement

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| --- | --- | --- | --- | --- | --- |
| # | Functional Requirement | Category | Notes | Priority | Owner |
| 1 | User Interaction | Chatbot | 1.1 Natural language interactions.  1.2 Relevant and accurate responses. | HIGH | JORGE SABOGAL |
| 2 | Automated Responses | Chatbot | 2.1 Provide automated responses for common queries.  2.2 Use ML for response improvement. | HIGH | JORGE SABOGAL |
| 3 | User Authentication | Security | 3.1 Secure user data.  3.2 Use secure authentication methods. | HIGH | JOEL MENDONSA |
| 4 | Data Security | Security | 4.1 Encrypt sensitive data.  4.2 Regular security audits. | HIGH | MOULYA BANGALORE PRADEEP |
| 5 | User Profile Customization | User | 5.1 Allow profile picture uploads.  5.2 Allow data preference settings. | MEDIUM | JOEL MENDONSA |
| 6 | Notification System | Alerts | 6.1 Real-time notifications.  6.2 Email notifications. | HIGH | JORGE SABOGAL |
| 7 | Content Management | Admin | 7.1 Admin can add/update/delete content.  7.2 Content approval workflow. | HIGH | MOULYA BANGALORE PRADEEP |
| 8 | User Feedback | Feedback | 8.1 User can provide feedback.  8.2 Feedback is stored for analysis. | MEDIUM | JOEL MENDONSA |
| 9 | Data Analytics | Data | 9.1 Analyze user interactions.  9.2 Use analytics for improvements. | HIGH | JORGE SABOGAL |
| 10 | Accessibility | UI/UX | 10.1 Ensure website is accessible.  10.2 Follow WCAG guidelines. | HIGH | MOULYA BANGALORE PRADEEP |
| 11 | User Support | Support | 11.1 Provide FAQs.  11.2 Implement chat support. | HIGH | JOEL MENDONSA |
| 12 | Multilingual Support | Language | 12.1 Support multiple languages.  12.2 Easy language switching. | MEDIUM | JORGE SABOGAL |
| 13 | User Guides | Documentation | 13.1 Provide user guides.  13.2 Video tutorials for usage. | MEDIUM | MOULYA BANGALORE PRADEEP |
| 14 | User Privacy | Privacy | 14.1 Ensure user privacy.  14.2 Clear privacy policy. | HIGH | JOEL MENDONSA |
| 15 | User Communication | Communication | 15.1 Implement user chat.  15.2 Implement user forums. | MEDIUM | JORGE SABOGAL |
| 16 | API Integrations | Integration | 16.1 Integrate with necessary APIs.  16.2 Ensure API security. | HIGH | JOEL MENDONSA |
| 17 | Admin Controls | Admin | 17.1 Provide admin dashboard.  17.2 Admin controls over user accounts. | HIGH | MOULYA BANGALORE PRADEEP |
| 18 | Live Updates | Data | 18.1 Provide live data updates.  18.2 Notify users of live updates. | HIGH | JOEL MENDONSA |
| 19 | User Groups | User | 19.1 Implement user groups.  19.2 Provide group communication channels. | MEDIUM | JORGE SABOGAL |
| 20 | Event Calendar | Events | 20.1 Provide event calendar.  20.2 Notify users of upcoming events. | MEDIUM | MOULYA BANGALORE PRADEEP |
| 21 | Third-party Login | Authentication | 21.1 Allow Google and Facebook login.  21.2 Ensure security. | MEDIUM | JOEL MENDONSA |
| 22 | User Activity Log | User | 22.1 Log user activity.  22.2 Use logs for troubleshooting. | MEDIUM | JORGE SABOGAL |
| 23 | Continuous Improvement | Improvement | 23.1 Regularly update features.  23.2 Use feedback for improvement. | HIGH | MOULYA BANGALORE PRADEEP |