**Use Case Scenario 1:**

**Name**: Initiate Chatbot Interaction

**ID:** 001

**Description:** A user visits the course website and initiates interaction with the chatbot to seek information or assistance.

**Actor:** Website User

**Organization Benefits:** Enhances user engagement and provides immediate assistance, improving overall user experience.

**Triggers:** User clicks on the chatbot icon.

**Preconditions:** Chatbot is active and available.

**Postconditions:** User receives a greeting and introduction from the chatbot.

**Main Course:**

1-User clicks on the chatbot icon.

2-System displays a greeting message.

-The chatbot generates a friendly greeting message, considering the time of day and any personalized preferences if available.

-The message is designed to be adaptable and create a welcoming atmosphere.

**Alternate Course:**

-If the chatbot is temporarily unavailable, the system displays an error message.

-The system checks the availability of the chatbot.

-If the chatbot is temporarily unavailable, the system notifies the user with a message indicating that the chatbot is not accessible at the moment.

-The user may be provided with alternative means of assistance, such as contacting human support or checking back later.

**Use Case Scenario 2:** Asking Questions to the Chatbot

**Name:** Ask Questions to Chatbot

**ID:** 002

**Description:** A user interacts with the chatbot to ask questions related to course information.

**Actor:** Website User

**Organization Benefits:** Enhances user engagement and provides instant assistance, contributing to an improved overall user experience.

**Triggers:** User expresses the intent to seek information by asking a question.

**Preconditions:**

The chatbot is active and available.

The user has initiated interaction with the chatbot (as described in the first use case scenario).

Postconditions: User receives relevant and accurate information from the chatbot in response to their question.

**Main Course:**

1- User formulates a question related to courses or any other relevant topic.

-The system detects the user's input.

2-Chatbot analyzes the question.

-The chatbot employs natural language understanding to comprehend the user's query effectively.

-It identifies keywords and context to determine the user's specific information needs.

3-System processes the question and retrieves relevant information.

-The chatbot accesses the course database or relevant information source to retrieve accurate and up-to-date information related to the user's query.

-Information provided may include details about courses, schedules, prerequisites, instructors, or any other relevant information.

**Alternate Course:**

If the chatbot cannot find relevant information or encounters difficulty understanding the user's question:

-The chatbot asks the user for clarification.

-It seeks additional details to better understand the user's needs.

-The chatbot may provide alternative suggestions or ask the user to rephrase the question.

-It ensures transparency by explicitly communicating its limitations and the need for additional information.

**Use Case Scenario 3:**

**Name:** Answer Course-related Questions

**ID:** 003

**Description:** The chatbot responds to user queries related to course information.

**Actor:** Chatbot

**Organization Benefits:** Provides users with quick and accurate information, improving their understanding of available courses.

**Triggers:** User asks a question related to courses.

**Preconditions:** Chatbot is active and has access to course information.

**Postconditions:** User receives relevant information from the chatbot.

**Main Course:**

1-Chatbot responds with the accurate course details.

-The chatbot generates a concise and informative response tailored to the specific context of the user's question.

-The response includes details such as course names, schedules, prerequisites, and instructor information.

2-user acknowledges and engages with the provided information.

-The user reviews the information provided by the chatbot.

-Depending on the complexity of the question, the user may ask

follow-up questions for clarification.

**Alternate Course:**

-If the chatbot cannot find relevant information, it asks the user for clarification.

-If the chatbot cannot identify the required information based on the user's initial query, it asks a clarifying question to better understand the user's needs.

-The chatbot may seek additional details or provide alternative courses that closely match the user's inquiry.

-It ensures transparency by explicitly communicating its limitations and the need for additional information.

**Use Case Scenario 4**

**Name:** Provide Customer Support

**ID:** 004

**Description:** The chatbot offers assistance to users experiencing problems or difficulties on the course website.

**Actor:** Website User,Chatbot

**Organization Benefits:** Improves user satisfaction by addressing issues promptly and efficiently.

**Triggers:** User indicates a problem or seeks assistance.

**Preconditions:** Chatbot is active and has access to customer support information.

**Postconditions:** User receives guidance or instructions to resolve the issue.

**Main Course:**

1-User Interaction:

-User describes the problem or asks for help.

-The system detects and processes the user's input.

2-Issue Analysis:

-The chatbot employs troubleshooting capabilities to identify and address common issues.

-It uses natural language understanding to comprehend the user's problem effectively.

3-Providing Solutions:

-The chatbot provides clear instructions or solutions to address the user's problem.

-Instructions are presented step-by-step and may include multimedia elements for enhanced clarity.

4-Issue Resolution Confirmation:

-The chatbot confirms with the user if the provided solutions resolved the issue.

-If the problem persists, the chatbot offers additional assistance or suggests contacting human support.

**Alternate Course:**

-Human Support Suggestion:

-If the chatbot cannot resolve the issue, it transparently communicates its limitations.

-The chatbot suggests contacting human customer support for further assistance.