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SDLC Phases:

* Planning
* Designing
* Developing
* Testing
* Maintenance

 1. Planning and analysis (Why build the system)

This phase is the most fundamental in the SDLC process. Project requirements are compiled and analysed by an analyst and project manager. The analyst interacts with stakeholders to develop the requirements document. They also write use cases and share this information with the project team. The aim of the requirements analysis is for quality assurance, technical feasibility, and to identify potential risks to address in order for the software to succeed.

2. Designing Phase (How will the system work)

During the design phase, lead developers and technical architects create the initial high-level design plan for the software and system. This includes the delivery of requirements used to create the Design Document Specification. This document details database tables to be added, new transactions to be defined, security processes, as well as hardware and system requirements.

3. Developing and coding

 In this phase, Developers create the interface as per the coding guidelines and conduct unit testing. This is an important phase for developers. They need to be open-minded and flexible if any changes are introduced by the business analyst.

 4. Testing

Testers test the software against the requirements to make sure that the software is solving the needs addressed and outlined during the planning phase. All tests are conducted as functional testing, including unit testing, integration testing, system testing, acceptance testing, and non-functional testing.

5. Maintenance

 In a post-production, live software environment, the system is in maintenance mode. No matter the number of users, the sophistication of the software and rigorous QA testing, issues will occur. That’s the nature of software with managing data, integration, and security, and real-world usage. Access to knowledgeable, reliable support resources is essential, as is routine maintenance and staying up to date on upgrades.

Feasiblity study

Project inline with Natural Language Processing

With the help of Natural Language Processing, I would vision on a smart delivery food delivery system with multilingual chatbots

The purpose of the smart delivery food delivery system with multilingual chatbots is to provide an aggregator platform that allows various restaurants and food businesses to communicate with the users speaking various local and regional languages easily with the help of an artificial intelligence (AI) powered intelligent virtual assistant (chatbot). The multilingual chatbot will understand the input(order) made in form of text or speech and responds in the same manner, context and language. Once the user opens the application the multilingual chatbot will appear, the user starts a conversation with the chatbot and places an order as easy and intuitive like chatting with a friend.

Whilst the presence of a food ordering system, the hardships of its navigations and it being non- linguistic for people from different regions and nations are being neglected by its developers. The aim of the project is to support the different diverse groups of people to be able to navigate and place orders on a food application system as easy and intuitive as possible with the help of an AI- powered intelligent virtual assistant which is linguistic that is to say understands any language communicated to it.

The scope of the project is limited to a few basic native and regional languages (most commonly used vernacular languages such as Luganda, Lunyakole etc) and also a few basic international languages such as English, French, Germany, Dutch etc for the Multilingual chatbot. The aggregator platform will also be limited to the locally available food businesses for example restaurants in the country would be the ones to use the platform for business transactions and only their menus and products will be displayed.