An Intelligent Chatbot for Personalised Financial Services

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STATEMENT

We aim to build a simple, intelligent chatbot which will provide personalized financial services to a user based upon respective wallet details, account information and previous and scheduled expenditures. The chatbot will take the form of a responsive web application, where in the user can post his/her queries and explore the best possible responses.

MOTIVATION

In today's digital world, managing finances is a challenge being faced by both, individuals and organizations. While people have some compulsory scheduled expenses, impulsive expenditures often destroy the balance. Hence, quite often individuals need their financial records and advice. Thus, our project is an attempt to address this issue, our chatbot aims at providing the users with financial services which are personalized for them.

Improving the efficiency of client service, minimizing human error and resolving client queries quicker is the aim of our chatbot.

Our Chatbot will allow customers to manage requests in a faster and a more efficient way. Financial services chatbots can assist clients in conducting a variety of financial transactions in a conversational and secure manner. From reviewing an account to making payments, to taking advice on a particular expenditure, the client can handle simple tasks on their own using this chatbot.

OBJECTIVE

In order to provide some personalized financial services, we aim to create a simple, intelligent bot that greets you, introduces itself and shares some basic information regarding your private financial status.
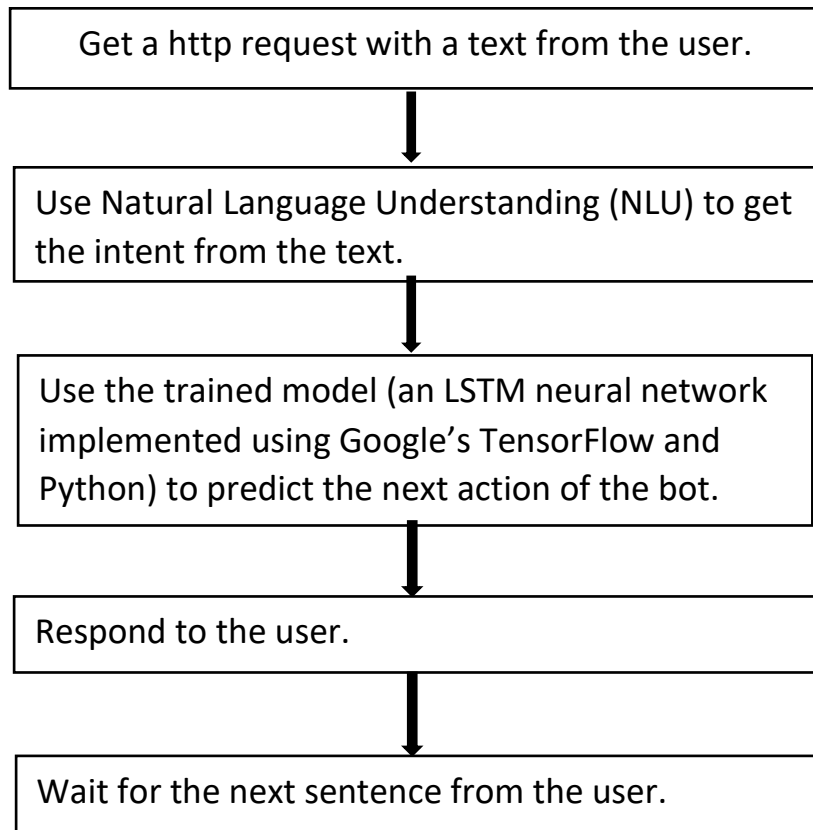
The bot will provide the following information to a user:

- wallet details (total money in the account, spent amount etc.)
- scheduled funds

- customer care services
- advice on expenditures (whether a client should spend money for an event/cause)

We aim to build a responsive web application for the same in which we will provide for an interface of a dialogue box, where in the client will be able to write his queries and the bot will answer his/her questions in the best possible way.

WORKPLAN

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┌─────────────────────────────────────────────────────┐
│        Get a http request with a text from the user. │
└─────────────────────────────────────────────────────┘
                          │
                          ▼
┌─────────────────────────────────────────────────────┐
│  Use Natural Language Understanding (NLU) to get      │
│  the intent from the text.                            │
└─────────────────────────────────────────────────────┘
                          │
                          ▼
┌─────────────────────────────────────────────────────┐
│  Use the trained model (an LSTM neural network        │
│  implemented using Google's TensorFlow and            │
│  Python) to predict the next action of the bot.       │
└─────────────────────────────────────────────────────┘
                          │
                          ▼
┌─────────────────────────────────────────────────────┐
│  Respond to the user.                                 │
└─────────────────────────────────────────────────────┘
                          │
                          ▼
┌─────────────────────────────────────────────────────┐
│  Wait for the next sentence from the user.            │
└─────────────────────────────────────────────────────┘
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DELIVERABLES

The user will be able to write his queries in a dialog box. The chatbot will provide the best possible reply to the query and wait for further instructions from the user. The user will be able to get all financial services and advice in a quick and efficient manner.