**MINI-PROJECT – 1**

**(2020-2021)**

**INTELLIGENT CHATBOT**

(USING PYTHON & MACHINE LEARNING)

**Synopsis**

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**Introduction**

As its title suggests Chatbot is software designed to interact with humans in their natural language through messaging applications, websites, mobile apps. The chatbot is often considered as the most promising and advanced method for interaction between humans and machines. These chatbots use audio as well as textual ways to converse with people or to communicate with humans in a human-like manner.

Chatbots work as a virtual assistant. It is predicted that by 2020, chatbots will handle nearly 85% of the costumer-brand interaction. The Chatbots answers the base of the question on the set of pre-defined rules and instructions. We use Machine Learning to train chatbot and make chatbot more flexible so that it can handle simple as well as complex conversations.

The aim of this project is that the everyone get understood the real time software development environment.

This mini-project helps in understanding the core concept of automations through implementation of ML concept and using knowledge of python to solve real-time problem.

So we choose the Intelligent Chatbot topic as our mini-project.

**Objective**

A project objective describes the desired results of a project, which often includes a tangible item. An objective is specific and measurable, and must meet time, budget, and quality constraints.

Objectives can be used in project planning for business, government, nonprofit organizations, and even for personal use (for example, in resumes to describe the exact position a job-seeker wants). A project may have one objective, many parallel objectives, or several objectives that must be achieved sequentially. To produce the most benefit, objectives must be defined early in the project life cycle, in phase two, the planning phase.

In the future, Chatbots will play a vital role in every field whether it will be IT or corporate world. Some of the benefits of chatbots are-  
• As we know Chatbots streamlines interactions between people and services, So it can work as enhancing the customer experiences.  
• It also offers companies new opportunities to improve the customer interaction process.  
• It can also reduce customer service costs.  
• Provide an easier approach to global markets.  
• Make customer service available 24/7.  
• Think about Siri, Alexa, Google Assistant. Aren’t these just wonderful?

**Requirements**

1. **Software Requirements-**

* **Python 3.7**
* **Pycharm**
* **Jupyter notebook**
* **Visual Studio Code- Visual Studio Code** is a free [source-code editor](https://en.wikipedia.org/wiki/Source-code_editor) made by [Microsoft](https://en.wikipedia.org/wiki/Microsoft) for [Windows](https://en.wikipedia.org/wiki/Windows), [Linux](https://en.wikipedia.org/wiki/Linux) and [macOS](https://en.wikipedia.org/wiki/MacOS). Features include support for [debugging](https://en.wikipedia.org/wiki/Debugging), [syntax highlighting](https://en.wikipedia.org/wiki/Syntax_highlighting), [intelligent code completion](https://en.wikipedia.org/wiki/Intelligent_code_completion), [snippets](https://en.wikipedia.org/wiki/Snippet_(programming)), [code refactoring](https://en.wikipedia.org/wiki/Code_refactoring), and embedded [Git](https://en.wikipedia.org/wiki/Git). Users can change the [theme](https://en.wikipedia.org/wiki/Theme_(computing)), [keyboard shortcuts](https://en.wikipedia.org/wiki/Keyboard_shortcut), preferences, and install [extensions](https://en.wikipedia.org/wiki/Plug-in_(computing)) that add additional functionality.
* **Github-** It provides hosting for software development and version control using Git. It offers the distributed version control and source code management functionality of Git, plus its own features. It lets you and others work together on projects from anywhere.

1. **Technology Requirements-**

* Chatterbot Library
* Tkinter (for GUI)
* Natural Language Toolkit(NLTK)
* Python Programming Language
* Machine Learning

**THANK YOU**