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| Virtual Assistance |
| Project Vision Document | |
| **Version 0.5** | |
| 10/9/2021 | |

**Revision History**

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| --- | --- | --- | --- |
| Revision | Date | Author | Summary of Changes |
| 0.1 | 09/20/2021 | Pruthvi Soni | Preliminary version of the Virtual Assistance |
| 0.2 | 09/25/2021 | Namya Patel & Sahay Patel | Basic mathematics operations implement research |
| 0.3 | 09/28/2021 | Vraj Soni & Saumya Mistry | Timer, reminders, and alarms implement research |
| 0.4 | 09/30/2021 | Namya Patel | Updates research |
| 0.5 | 10/09/2021 | Pruthvi Soni | Start Implementing version 1.1 |

**Document Approval List**

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| --- | --- | --- | --- |
| Version | Approved By | Signature | Date |
| 1.0 | Anjana Shah |  | 25 September 2021 |
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**Document Distribution List**

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| Version/ Document | Name of the Group | Date |
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# Introduction

Virtual Assistant is coded in python language and will be available in Windows first, which performs the regular functions that some of the famous virtual assistant like Siri, Cortana and google perform. It will also break some limitations which will make us stand out.

## Purpose

Complete some chores like sending emails, setting alarms and many more tasks can be performed over voice command and not only that you can ask some questions of which you don’t know answers like simple math problems and questions about history and assistant can give you information and resources to look upon.

## Scope

Virtual Assistant will be helpful in doing day to day task by voice commands easily, rather than having user do it manually.

### In Scope

* Search with voice commands
* Basic math operation.
* Reminder and To-Do application
* Vocabulary App to show meanings and correct spelling errors.
* Weather Forecasting Application.
* All languages support

### Out of Scope

* Wake up assistant with voice command
* Complex mathematical conversions
* Schedule messages
* Web scrapping
* Financial calculations

## Definitions, Acronyms, and Abbreviations

<This subsection provides the definitions of all terms, acronyms, and abbreviations required to properly interpret the Project Visiondocument. This information may be provided by reference to the project’s Glossary>

This section explains all of the terms and abbreviations that are being used in this document, for those who are unfamiliar with them. Not everybody who reads this document will understand all of the terms, so this section is helpful.

|  |  |
| --- | --- |
| Term | Explanation |
| Web Scrapping | It means to surf a website programmatically. |
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## References

*<This subsection provides a complete list of all documents referenced elsewhere in the Project Vision****.*** *Identify each document by title, report number if applicable, date, and publishing organization. Specify the sources from which the references can be obtained. This information may be provided by reference to an appendix or to another document>*

| Reference File Name | Version | Description |
| --- | --- | --- |
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This section also contains links to all other places that were referred to in this document. These may include:

* Web sites
* URLs or network locations
* Research done for similar products

|  |  |
| --- | --- |
| Name | Link |
| Basic Learning for making Virtual Assistant | https://towardsdatascience.com/how-to-build-your-own-ai-personal-assistant-using-python-f57247b4494b |
| Web Scraping with Python | https://towardsdatascience.com/how-to-web-scrape-with-python-in-4-minutes-bc49186a8460 |
| Research basic commands of Virtual Assistant to implement those | https://www.msn.com/en-us/news/technology/a-comprehensive-list-of-siri-voice-commands-you-can-use-on-an-iphone/ar-BB1b428G |

# Positioning

## Business Opportunity

Increases the productivity and ensures that customers receive timely response. If a client is too busy to perform some small tasks like sending an email or setting an alarm, the virtual assistant can help the client in doing this task and many more tasks on command of client’s voice.

## Problem Statement

|  |  |
| --- | --- |
| The Problem of | Small task taking too long to complete |
| affects | People who use computer often |
| the impact of which is | Wasting a lot of time |
| a successful solution would be | Implementing an artificial assistant that can follow voice commands given to it and completes is so that user does not have to do it manually. |

Table 1 Problem Statement

## Product Position Statement

|  |  |
| --- | --- |
| For | Computer users |
| Who | Needs an assistant to keep track of their meetings, to send email, calls someone for them, and to do faster mathematics calculation. |
| The Virtual assistant | is a software product |
| That | Can take voice commands and complete them. |
| Unlike | Cortana on Windows, it is not capable to send email, WhatsApp messages, call from your phone, understand command in other language than English.in our product we will get rid of these issues and make a better assistant that feels like a real one. |
| Our product | Asks for feedback after every command executed to keep getting our product better. |

Table 2 Product Position Statement

## SWOT Analysis

|  |  |
| --- | --- |
| Strengths | Weaknesses |
| **Coding language (Python)** | **New field i.e., AI** |
| **Great Team Coordination** | **Language barriers for different culture** |
|  |  |
| **Opportunities** | **Threats** |
| **Learning in the field of AI** | **Machine learning for some tasks** |
| **Breaking limitations** | **Time consumption** |
|  |  |

# Stakeholder and User Descriptions

The target market segment includes who already use cell phones or computers for personal and/or business use. Our product can be used from any part of the world as all languages are supported.

## Stakeholder Summary

< There are several stakeholders with an interest in the development and not all of them are end users. Describe and list the project stakeholders>

| Stakeholder Name | Represents | Role |
| --- | --- | --- |
| System Analyst | This is a stakeholder that works with the stakeholders to gather their needs. | Leads and coordinates requirements elicitation and use-case modeling by outlining the system's functionality and delimiting the system. |
| Requirements Engineers | This is a stakeholder that works with the Analysts to correctly translate requests/needs into requirements to be used for design. | Specifies the details of one or more a part of the system’s functionality by describing one or the aspects of the requirements, this will include functional and non-functional. |
| Software Architect | This stakeholder is a primary lead in the development of Virtual assistant. | Responsible for overall architecture of the system, and guides overall design and implementation of system |
| Project Manager | This stakeholder leads development of Virtual Assistant. | Plans, manages, and allocates resources, decides priorities, coordinates interactions with customers and users, and keeps the project team focused. |
| Technical Reviewer | This is a stakeholder that must be involved regularly to maintain the development cycle. | Responsible for contributing feedback to the review process. This role is involved in the category of review that deals with the technical review of project artifacts. This role is responsible for providing timely, appropriate feedback on the project artifacts being reviewed. |
| Market Analyst | This is a stakeholder that will assist our abilities to position our product successfully. | Ensures that there is going to be a market demand for the product's features and for the new service. |

Table 3 Stakeholder Summary

## User Summary

< Present a summary list of all identified users of the system >

| Username | Description | Responsibilities | Stakeholder |
| --- | --- | --- | --- |
| Student | Primary end user of the system. | Create his/her own profile to use. Gives commands that are implemented by developers. Gives honest feedback after every command. | Self |
| Professor | End user of the system. | Create his/her own profile to use. Gives commands that are implemented by developers. Gives honest feedback after every command. | Self |
| Writer | End user of the system. | Create his/her own profile to use. Gives commands that are implemented by developers. Gives honest feedback after every command. | Self |
| Programmer | End user of the system. | Create his/her own profile to use. Gives commands that are implemented by developers. Gives honest feedback after every command. | Self |

Table 4 User Summary

# Stakeholder Requirements

< Categorize and list the requirements from the perspective of the business stakeholder and potential system users >

| ID | Requirement | Stakeholder |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |

Table 5 Stakeholder Requirements

# System Features

< List and briefly describe the system features. Features are the high-level capabilities of the system that are necessary to deliver benefits to the users. Avoid design. Keep feature descriptions at a general level. Focus on capabilities needed and why (not how) they should be implemented >

| ID | Feature | Stakeholder Requirement ID |
| --- | --- | --- |
|  |  |  |
|  |  |  |

Table 6 System Features

# Assumptions

*Searching (on google, Bing, etc.) with voice command*

*Performing basic math problems*

*Help to maintain to-do list*

*Able to describe meaning/spelling of any word*

*Provide weather forecast*

*Perform web scrapping*

# Constraints

*Won’t be able to perform complex mathematical conversion*

*Won’t be able to wake up the assistant it will have to be turned on manually.*

*Scheduled messages to a specific person*