**PROJECT REPORT**

**ON**

**VOICE ASSISTANT (ALIEN)**

**SUBMITTED TO**

**DEPARTMENT OF COMPUTER SCIENCE**

**UNDER THE SUPERVISION OF**

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**DECLARATION**

I hereby declare that the courses submitted as part of Term 1 python project (sem1) Bachelor’s degree in CSE, at Chitkara University, Punjab, is an authentic record of our own work carried out under the supervision of Dr. Amandeep Kaur.

**Signature(s):**

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**ACKNOWLEDGEMENT**

I have taken efforts in this project. However, it would not have been possible without the help of many individuals and websites. I would like to extend my sincere thanks to all of them.

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i would like to express my special gratitude and thanks to industry persons for giving me such attention and time.

**GuideLines and Principles**

**ALIEN - Your Personal Voice Assistant** Basically, dialog systems use NLP to analyze speech in text form and to understand the user’s concern (intent). After the intents have been recognized, the required action is carried out via the underlying API connections and returned to the user as feedback. The NLP is always based on text in different languages. For the conversion of spoken language, TTS (text to speech) engines are used, which generate a text from speech that can be used by NLP. Either text is used for output or the text is converted back into spoken language using the STT (speech to text) engine.

**In principle,** there are a large number of possible entry points to virtual assistants. It is advantageous that all entry points work with language. Therefore, only the input nodes need to be defined, processing and information retrieval remain the same. This saves development time, especially with many different access routes, and is easy on the budget.

Some of the popular voice assistants are:

* Google assistant
* SIRI
* ALEXA
* CORTONA

**About ALIEN**

ALIEN Voice Assistant, it’s a project made on python which enables user to get their work done by giving voice commands. It is a modal assistant for now on with some features which are useful in daily uses, such as **asking time, knowing weather, searching on wikipedia and google, playing music, locking and shutting down system, sending mails** etc. The personal assistant allows you to work efficiently by giving short voice commands such as “whats’s the time?” it’s a very basic example ,this assistant can do so much more. The reason behind the name **ALIEN is because my nickname is alien.** User can even change the name of the assistant if they want to and from then the assistant will pronounce itself with that name only. Currently ALIEN is a beta version (1.O). GUI can be made for the assistant to make it look more clean and user friendly. It consists of lots of libraries which were present before and some are installed later on by using **pip instal……**

**THE MAIN FUNCTIONS USED ARE:**

def sptext(): **#for recognizing what user said**

    recognizer=sr.Recognizer()

    with sr.Microphone() as source:

        while True:

            print("Listening...")

            recognizer.adjust\_for\_ambient\_noise(source)

            audio=recognizer.listen(source)

            try:

    #            speechtx("Recognizing...")

                print(("Recognizing..."))

                data=recognizer.recognize\_google(audio,language='en-in')

                return data

            except sr.UnknownValueError:

                speechtx("Sorry, i can't understand")

                print("Sorry, i can't understand")

def speechtx(x): **#for speaking**

    engine=pyttsx3.init('sapi5')

    voices=engine.getProperty('voices')

    engine.setProperty('voice',voices[0].id)

    rate=engine.getProperty('rate')

    engine.setProperty('rate',150)

    engine.say(x)

engine.runAndWait()

**LIBRARIES INSTALLED :**

import subprocess

import wolframalpha

import pyttsx3

import json

import speech\_recognition as sr

import datetime

import wikipedia

import webbrowser

import os

import winshell

import pyjokes

import smtplib

import ctypes

import time

import requests

import shutil

from twilio.rest import Client

from clint.textui import progress

from ecapture import ecapture as ec

from bs4 import BeautifulSoup

import win32com.client as wincl

from urllib.request import urlopen

**CONCLUSION:-** This application will be very beneficial to people as it’s time efficient and reduce the work by doing activities just by mare voice commands with efficiency.

The user can ask anything from the assistant and their work will get done in barely few seconds.

It's clear that the technology will soon be everywhere, and with 5G and improvements in machine learning, voice assistants might at some point become tools we can’t live without.

**FUTURE SCOPE:-** 71% users already prefer voice search to manual typing since it’s much faster and also allows them to multitask. But as voice assistants become more powerful, easier to use, and able to understand context far better, more people will turn to voice search and virtual assistants for help with their everyday tasks.

In the near future, voice assistants are also expected to take a more proactive role. Rather than just waiting for user commands, assistants will collect context-specific information and then take the initiative by making helpful suggestions to the user. For example, people can interact with their in-car voice assistants to get information about fuel levels, diagnostics, and service needs or system settings that may need adjustment. So when fuel levels are low, the voice assistant may suggest going to the nearest gas station (with GPS directions if needed).

What’s more, an in-car voice assistant could be connected to intelligent home systems by integrating them with IoT devices or home automation systems. This would enable car owners to turn off the lights and set the alarm after they leave home or turn on the heating before they return.



**THANK  
YOU**