

Research Article

Research Paper on Jarvis: A Study of Advanced Software Assistant for Intelligent Task Automation and Personalized Assistance

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A B S T R A C T

The project's goal is to create a computer-based personal assistant program. This software aid is inspired by virtual assistants such as Cortana for Windows and Siri for iOS. It was created to give an intuitive user experience for performing a number of operations by utilizing clear instructions. Users may communicate with the assistant by utilizing audio commands and a microphone. Jarvis supports the consumer with regular activities such as general human conversation, searching questions in Google, searching for videos, live weather forecasts, word meanings, searching for healthcare details, healthcare suggestions based on, opening YouTube, telling current time, playing songs, opening map, maintaining notes, and alerting the user about upcoming activities and tasks. The voice identification module analyses the user commands as it converts the speech into written language and moves on to the next assignment. This is a simple project to assist users in making their system duties easier. It uses spoken commands to assist users search for information or perform system-related tasks. This project is designed to be used as a computer-based application.

Keywords: Automation, Computer, Jarvis

Introduction

The project aims to develop a software assistant (Jarvis) which will be highly cost-effective, easily driven and maintainable to anyone and it is not as capable and high as like Amazon's Alexa or Google Assistant, Home or Apple's Siri or JARVIS from Iron Man. Nowadays, People are fed up with typing commands into the computer. Be it procrastination or a busy schedule. Typing is a big obsolete process. The solution to this is that we switch over to an assistant which understands us and does initial work for us. A software assistant is the best replacement for typing commands. It is named as Jarvis (software Assistant) with Voice Recognition Intelligence, which takes the user input in the form of user's voice and processes it and returns the output in various

ways like an action to be performed or the search result is spoken out in the form of audio to the end user.¹⁻⁴

This software aims to develop a personal assistant for desktop application. The main purpose of the software is to perform the tasks of the user at certain commands, provided in speech. It will ease most of the work of the user as a complete task can be done on a single command. Jarvis (Software assistant) draws its inspiration from virtual assistants like Cortana for Windows and Siri for iOS. Users can interact with the assistant through voice commands.

Product Goals and Objectives

Currently, the project aims to provide the Users with a Virtual Assistant that would not only aid in their daily

routine tasks like searching the web, extracting weather data, vocabulary help and many others but also help in automation of various activities. In the long run, we aim to develop a complete software assistant, by automating the entire server management process - deployment, backups, auto- scaling, logging, monitoring and make it smart enough to act as a replacement for a general server administrator. In future, this project will be enhanced by connecting to Arduino that will enable us to do more flexible tasks. This will enable us to operate many more home devices with this system software. Also, will be connected with Car and automobile to drive various things like switching on wiper, closing windows, starting the car, etc.

What can Jarvis 1.0 do at the end of the project?.

1. Search Anything on Wikipedia.
2. Open YouTube.
3. Open Google.
4. Open stack overflow (A programming site to clear doubts and queries).
5. Can tell the current time.
6. Will send an email.
7. You will be able to ask, "How are you" and in return it will also revert and give replies.
8. You will be able to change Jarvis' name and in return it will ask your name too.
9. "Tell me a joke" this command will activate Jarvis to tell a joke.
10. It can calculate for you.
11. Can search for anything for you on browser.
12. Play songs.
13. Tell the location on google map.
14. Will wish you on starting and terminating of the program.
15. Can read pdfs.

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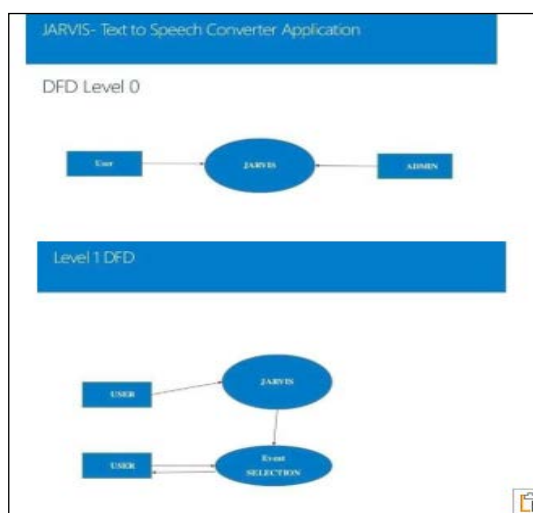


Figure 1

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