

WhatsApp Intelligent Agent using Raspberry Pi

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Abstract--- The initial aim behind developing this project is to provide important services for free, especially those ones, which are usually charged by mobile operators. In order to provide services first user has to add WhatsApp intelligent agent to contacts. After adding this intelligent agent to WhatsApp group, user is provided with catalogue of different services available for selection. User can subscribe the services as per choice as well as unsubscribe the services. After successful subscription of services the results of subscribed services will be provided to user in the form of text and/or links and/or images automatically. This service can be readily used by common man with minimal configuration changes. This is a project with the objective to develop a system where a user is provided with some services and also to know about the technologies used to develop such a system.

Keywords--- WhatsApp, Intelligent Agent, Subscribe, Raspberry pi

I. INTRODUCTION

To develop a intelligent service where user can subscribe for various services from the WhatsApp through the Internet. The user will check through available services and add services to subscription and later get updates. The user will be displayed with updates of subscribed services. This project helps user to subscribe to several services with just sending keyword for services from the ease of their own environment. Further it provides a platform for user to select services and get updates. It will provide easy way for user to select services from service menu and it will generate a subscription message. This subscription message contains a name of subscribed service and keyword for subscription of same service. Sending this keyword by the user the service will be subscribed. This will initiate a new era of providing information, news, cricket score, jokes etc. automatically and advertisement on WhatsApp.

II. PROPOSED SYSTEM

After studying above it has been noticed that few of the services are available on other social messaging service applications though they are not available on WhatsApp. Also it is very time consuming to search manually on the web for different information. To overcome all the above problems we have proposed WhatsApp Intelligent Agent.

WhatsApp intelligent Agent provides user a service menu to select services according to his/her choice for subscription. It is an excellent service for all the users who browse, search on the web for the required information with the help of browser. WIA provides updates for the subscribed services in the form of WhatsApp message. User can also unsubscribe services. Updates will be provided to user as the new updates are available.

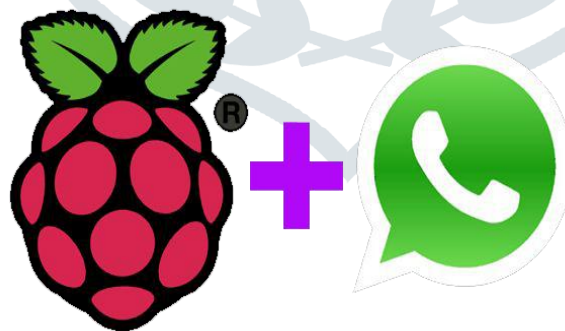


Fig.1: Raspberry pi plus WhatsApp

III. SYSTEM ARCHITECTURE

In the design phase the architecture is established. This phase starts with the requirement document delivered by the requirement phase and maps the requirements into architecture. The architecture defines the components, their interfaces and behaviours. The deliverable design document is the architecture. The design document describes a plan to implement the requirements. This phase represents the “how” phase.

Block diagram as shown in Fig.2 basically describes the working of our system. It consist of following blocks-

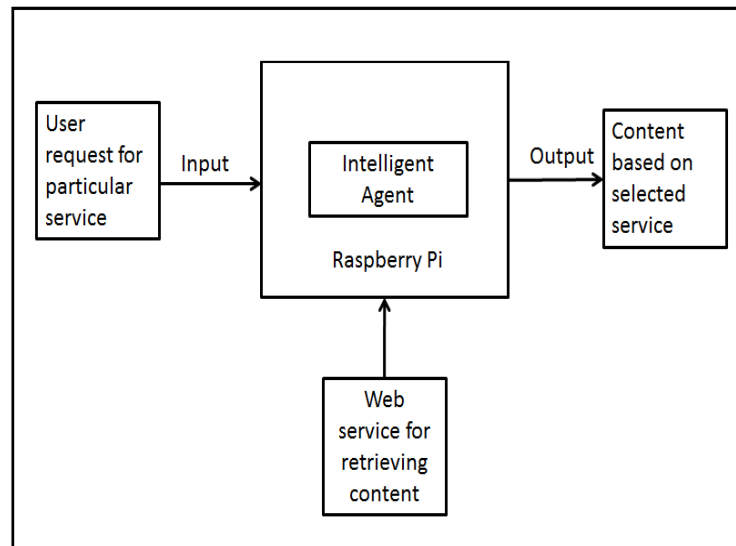


Fig.2: System Block Diagram

1. User- This is the end user who will be interacting with our system. First the user will add agent in contact and then in WhatsApp group. The user can select services from the service menu for subscription or unsubscription of the services.
2. Agent- This panel is managing all the processes of the system. It consists of smart program which is programmed using python. Agent listens the request of the user and provides the service menu. Agent also processes the subscription and unsubscription of services and further it provides the updates for the subscribed services to user.
3. Web Service- This retrieves contents of services from the web and provides it to user. It also check for updates.
4. Raspberry Pi- The various components of Raspberry pi are given below:

Raspberry pi is a small credit-card sized computer capable of performing various functionalities such as in surveillance systems, military applications, etc. It is used in this system because of its portability. Some other components of Raspberry Pi are-

- SD Card Slot is used to install OS/booting/long term storage .The total memory of the SD card is about 8GB.
- Micro USB Power Port provides 700mA at 5A.
- RCA Video Out is connected to display if HDMI output is not used. It is mainly used to carry audio and video signals. They are otherwise called as A/V jacks.
- Audio Out Digital audio is obtained if HDMI is used to obtain stereo audio. Here analogue RCA connection is used.
- Ethernet Port is used to connect to the Internet. It also plays a role in updating, getting new software easier.
- HDMI OUT (High Definition Multimedia Interface) is used with HDTVs and monitors with HDMI input. Also HDMI-HDMI is used here.
- BROADCOM BCM 2835: It is otherwise defined as System on chip .It is a 700 MHz Processor. It has a Video core IV GPU.
- GPIO allows us to control and interact with real world.

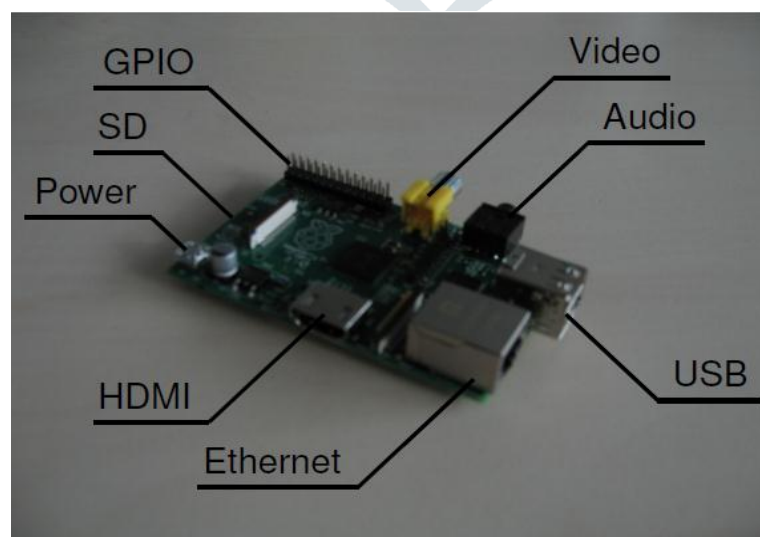


Fig.3: Raspberry Pi

IV. DISCUSSION

The service being developed is “WhatsApp Intelligent Agent using Raspberry Pi”. This system is designed to “provide automated service” for the subscribed users on the WhatsApp. The system will be run on a Linux operating system using python technology with each user having a user interface through a WhatsApp group to interact with it.

Every user of WhatsApp can create group on WhatsApp and can add intelligent agent in the group. This service will allow user to select service from service menu to subscribe. The user, through the process of subscription, will have the option to become user of this service. The intelligent agent will provide results for subscribed services automatically through text and/or link and/or images. This service reduces time required to manually search, browse required information. The automated WhatsApp message functionality will be used to send results to subscribed users.

V. CONCLUSION

This study mainly developed a smart service for common person, we have studied and completed the literature survey of our project, WhatsApp Intelligent Agent using Raspberry pi. We completed the requirement analysis by studying requirements for our project. In the design phase we designed the working of project and draw the different UML diagrams, further we designed the prototype of our system.

Further we intend to study python for development and coding of proposed system, after this we would design the service menu, then we will code for subscription, subscription of services and providing updates for subscribed services and then testing will be done and finally a report describing these stages will be documented.. Literature survey and system design is completed. We are looking for its implementation system.

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