



Intelligent Personal Assistant And Knowledge Navigator

User Guide

For Windows 7/8/8.1/10 & Mac OS

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1. Introduction

1.1 About this app

Intelligent Personal Assistant and Knowledge Navigator is an application that allows users to use their Windows computer to perform action or search an answer in a document using their speech. The application is a project is based on Java and is submitted in partial fulfillment of the award of the degree of Bachelor of Technology in Computer Science and Engineering of Cochin University of Science and Technology.

1.2 Disclaimer

Libraries and Images used in this application are either based on Creative Commons license or are open source.

Neither the University should be held responsible for the unintended use of this app.

Java is a trademark of Oracle and its affiliates

FreeTTS is Java package, Sun Microsystem, Inc.

This application follows all of the copyright terms as well as terms of usage of these libraries.

1.3 Terms and Conditions of Use

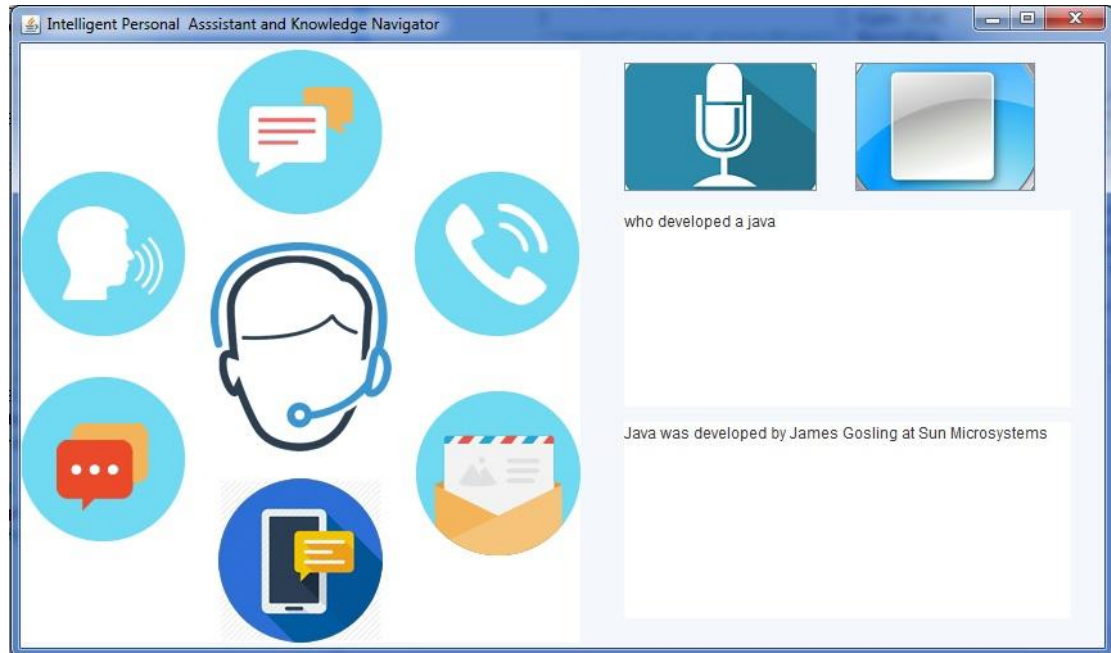
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By installing this application, you accept to agree its TOS.

2. IPA&KN Overview

2.1 Interface



2.2 Components:

Title: Used to show the title of Intelligent Personal Assistant and Knowledge Navigator.

Appication Status: Used to show the status of the application i.e is application listening or processing.

Status - Listening: Application is listening to user and it can hear what the user is saying.

User speech box: Transcript of users speech.

Reply box: Reply of application i.e. Intelligent Personal Assistant and Knowledge Navigator based on users query.

Minimize button: This button is used to minimize the application to dock.

Minimize button: This button is used to close the users application

3. How to use

3.1 Getting started:

Before starting the application you need to make sure some of the components that are necessary for running the application is installed.

3.1.1: Checking and installing Java

We need to make sure that the system has got Java installed in order to start the application.

To check if Java is installed in your system

Open Launchpad and type “terminal”

Open terminal app and type

```
java -version
```

If it displays Java version details along with SE Runtime Environment

You are ready to get started:

```
java -version
```

```
java version "1.7.xxxxxx"
```

```
Java(TM) SE Runtime Environment (build x.x.x_xx-xxxx)
```

```
Java HotSpot(TM) 64-Bit Server VM (build x.x.x_xx-xxxx, mixed mode)
```

But if you get

Command not found

You will need to download and install Java first

(Please visit: <https://java.com/en/download/>)

3.1.2: Checking mic and audio output

Microphone and audio output are the most important part of this application, hence we need to make sure that the system is capable of recording audio and playing sounds.

In order to check these details:

Checking Microphone:

1. Plug the microphone into the computer.
2. Click Start , All Programs, Accessories, and select Sound Recorder.
3. Click Start Recording (the red circle) and speak into the microphone. ...

4. When finished recording, click Stop Recording.

Checking Audio Output:

1. Double-click the Speaker icon in the System Tray.
2. Click Options in the menu at the top of the window.
3. Click Properties.
4. Choose Recording in the Adjust Volume For section. ...
5. Ensure that Mic/Microphone has a checkmark next to it.
6. Click OK.
7. Test the microphone using Sound Recorder as in Step 1.

If u hear a sound u are ready to start the application.

(In case these test cases fail, refer to 4.1 Troubleshooting Guides)

3.2: Starting and using application

Run IPA deploy version 1.jar file.

As soon as an application interface shows up you can click on the microphone icon to start recording.

As soon as its changes into listening you can start talking with the IPA:
You can ask IPA to get an answer from a set of documents and also perform actions like open websites and application and close them. For definite question please refer to the Cheat sheet ([Section 3.3](#)).

Hit stop recording when you finish recording.

Wait tills you get the corresponding response from IPA.

Your speech will be seen at the upper box and you will get an answer to your questions at lower box of the application along with IPA voice.

To end an application, please select the red close buttons at the top right of the application or just use the speech “Stop Recognition” / Goodbye Computer.

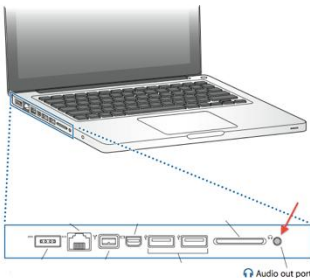
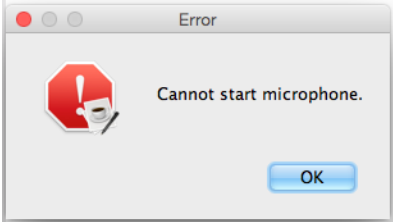
3.3: Cheatsheet:

- Hey computer
- Do you have a name?
- Your age?
- Open/close: Terminal, Music, Browser, Device manager,Photoshop, Dictionary, Chrome, System Preferences,Bluetooth etc
- Open: Google/Facebook.
- Stop recognition / Good bye computer.

5. Troubleshooting

Here are some of the possible errors and warning that might appear during program execution and usage and possible ways to fix them.

Cause and Possible Fix	Error Details	ID
Possible Cause: <ul style="list-style-type: none">● Wrong Platform used (windows or Linux) Possible Fix: <ul style="list-style-type: none">● Try using the application with correct version of Java SDK	Cant open <i>IPA deploy version1.jar</i> file	1
Possible Cause: <ul style="list-style-type: none">● Missing JRE● Application not installed properly Possible Fix: <ul style="list-style-type: none">● Install Java (Please refer to 3.1.1 section)● Reinstall application please refer to installation guide	Error while executing the application	2
Possible Cause: <ul style="list-style-type: none">● Missing Data file● Missing UI elements Possible Fix: <ul style="list-style-type: none">● Place UI elements at application directory	Application interface missing buttons and looks ugly	3
Possible Cause: <ul style="list-style-type: none">● Microphone Not working Possible Fix:	Application says cannot start application or I can't hear what you said	4

<ul style="list-style-type: none"> ● Make sure that the audio jack on microphone slot is inserted properly.  <ul style="list-style-type: none"> ● Try (3.1.2 section) ● Restart your application / Computer ● Contact Windows Support 	 <p>Can't start microphone.</p>	
<p>Possible Cause:</p> <ul style="list-style-type: none"> ● Problem with speakers <p>Possible Fix:</p> <ul style="list-style-type: none"> ● Try (3.1.2 section) ● Restart your application / Computer ● Contact Windows Support 	<p>No audio output</p>	5
<p>Possible Cause:</p> <ul style="list-style-type: none"> ● App not installed ● Version mismatch (eg Adobe Photoshop cs4 instead of CS6) <p>Possible Fix:</p> <ul style="list-style-type: none"> ● Try reopening the app 	<p>Application Says Opening app name but wont open</p>	6
<p>Possible Cause:</p> <ul style="list-style-type: none"> ● New Questions ● Noise and disturbance <p>Possible Fix:</p> <ul style="list-style-type: none"> ● Use cheatsheet (refer to section 3.3) ● Try to use the app in 	<p>Application won't understand or answer my question</p>	7

silent environment.		
Possible Cause: <ul style="list-style-type: none"> ● Problem with accents ● Fast speech ● Time delay Possible Fix: <ul style="list-style-type: none"> ● Try speaking clear and slow. ● Wait for a couple of seconds after speech output before asking new questions. 	I have to repeat every sentence couple of times to make it understand	8

---- Thank you ----

Aishwarya S Kumar

Edrin Seban George

Eldho Joy

Thomas George

Vishnu K.P