

Institute of System Science Automated Chatbot (ISSAC)

with The Sunday Lunatics

User Guide

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System Overview

ISSAC is an Automated Chatbot that provide information about the Institute of System Science (ISS) of the National University of Singapore. ISSAC is suitable for fresh graduates, IT professionals, domain experts and anyone who like to know more about what ISS has to offer.

User Interface

Flask is used as ISSAC's front end user interface. The backend bespoke web application is coded in Python. The results are sent to Flask to display the results onto the web interface.

Requirements

ISSAC supports the following web browsers:

- Internet Explorer 11
- Microsoft Edge 39 and above
- Firefox 53 and 52 ESR and above
- Google Chrome Version 59 and above
- Safari Version 10 and above

Deployment

To run the system using iss-vm

1. Download pre-built virtual machine from <http://bit.ly/iss-vm>
2. Start iss-vm
3. Open terminal in iss-vm
4. `$ git clone https://github.com/musicrokr/IRS-CS-2019-03-09-IS01PT-GRP-TheSundayLunatics-ISSAC.git`
5. `$ cd folder_location/SystemCode/issac-backend`
6. `$ py -m venv env`
7. `$ env\Scripts\activate`
8. `$ pip install -r requirements.txt`
9. `$ python main.py`
10. Download ngrok from <https://ngrok.com/>
11. Run ngrok on http port 8080

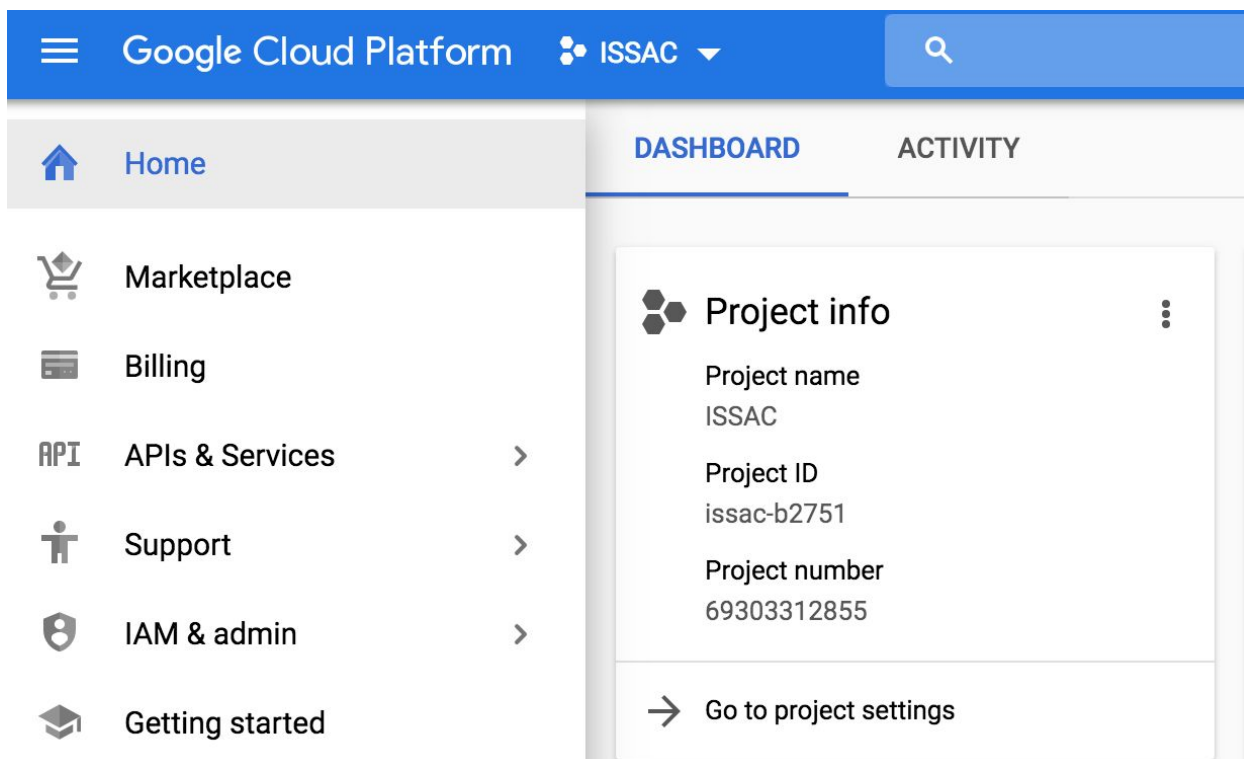
To run the system in other/local machine:

Install additional necessary libraries. This application works in Python 3 only.

1. `$ git clone https://github.com/musicrokr/IRS-CS-2019-03-09-IS01PT-GRP-TheSundayLunatics-ISSAC.git`
2. `$ cd folder_location/SystemCode/issac-backend`
3. `$ py -m venv env`
4. `$ env\Scripts\activate`
5. `$ pip install -r requirements.txt`
6. `$ python main.py`
7. Download ngrok from <https://ngrok.com/>
8. Run ngrok on http port 8080

Run Frontend Application

1. Start backend server first
2. Import dialogflow project from /SystemCode/ISSAC.zip
3. Go to Google Cloud Platform <https://console.cloud.google.com/home/dashboard>
4. Select ISSAC project name: ISSAC
5. Copy out the project_id. e.g issac-b2751



6. Go to APIs & Services then Credentials
7. Under Create credentials, click on Service account key

Google Cloud Platform ISSAC

APIs & Services

Credentials

Dashboard Library **Credentials**

Credentials OAuth consent screen Domain verification

Create credentials Delete

- API key**
Identifies your project using a simple API key to check quota and access.
- OAuth client ID**
Requests user consent so your app can access the user's data.
- Service account key**
Enables server-to-server, app-level authentication using robot accounts.
- Help me choose**
Asks a few questions to help you decide which type of credential to use

8. Select Dialogflow integrations under Service account.
9. Then select JSON under key type, click create



Create service account key

Service account

Dialogflow Integrations ▼

Key type

Downloads a file that contains the private key. Store the file securely because this key cannot be recovered if lost.



JSON

Recommended



P12

For backward compatibility with code using the P12 format

Create

Cancel

10. Copy the downloaded JSON file (ISSAC-*.json) to the root folder of the project - ISSAC

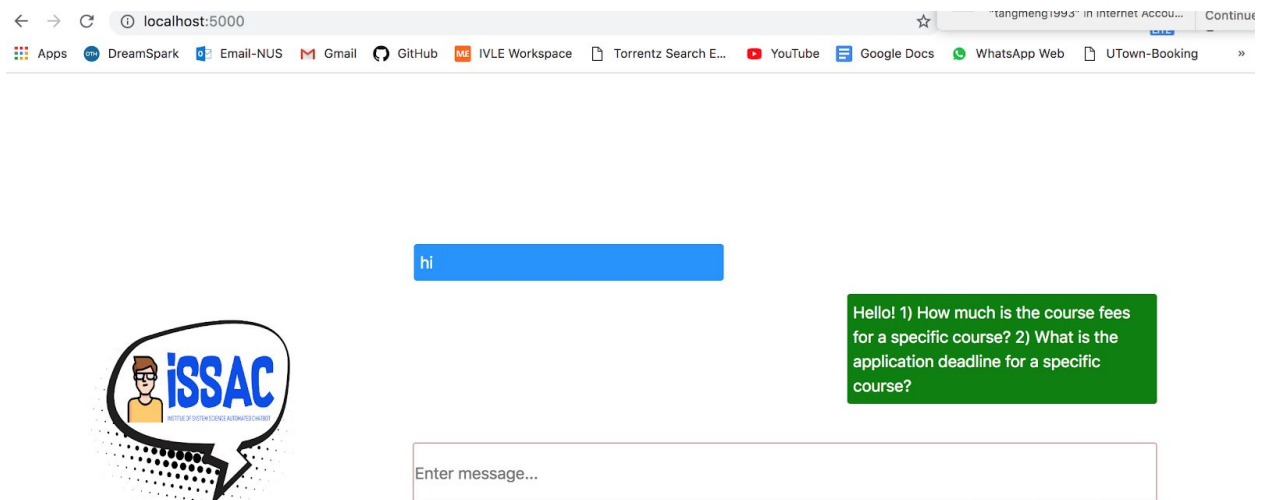
11. Replace GOOGLE_APPLICATION_CREDENTIALS and DIALOGFLOW_PROJECT_ID in index.py

```
index.py x
1  from flask import Flask, request, jsonify, render_template
2  import os
3  import dialogflow
4  import requests
5  import json
6
7  app = Flask(__name__)
8
9  os.environ['GOOGLE_APPLICATION_CREDENTIALS'] = 'ISSAC-702e5c96171c.json'
10 os.environ['DIALOGFLOW_PROJECT_ID'] = 'issac-b2751'
11
12
13
14
```

```
12. $ cd folder_location/SystemCode/issac-frontend
13. $ pip install dialogflow
14. $ pip install flask
15. $ python index.py
```

Get Started

Open up your preferred browser and go to the URL "http://localhost:5000" as shown below:



Walkthrough

1. To ask ISSAC a question, input the question



Where is ISS?

2. Hit 'Enter'.



Where is ISS?

...

Enter message...

3. The response will be displayed.



Where is ISS?

The Institute of Systems Science is located at 29 Heng Mui Keng Terrace, Block D & E Singapore 119620

Enter message...