



# **NORTH SOUTH UNIVERSITY**

*Center Of Excellence in Higher Education*

Department of Electrical and Computer Engineering

## **Project Progress Report**

### **“Protisruti”**

**Junior Design (CSE299)**

**Section: 16**

#### **Group Members:**

1. Sirajus Salekin Nahin - 173 1210 042
2. Samira Saif Joarder - 181 1482 042
3. Ummay Ashim Laila – 181 2335 642
4. Md. Asraful Islam Asif – 181 3425 642

#### **Submission Date:**

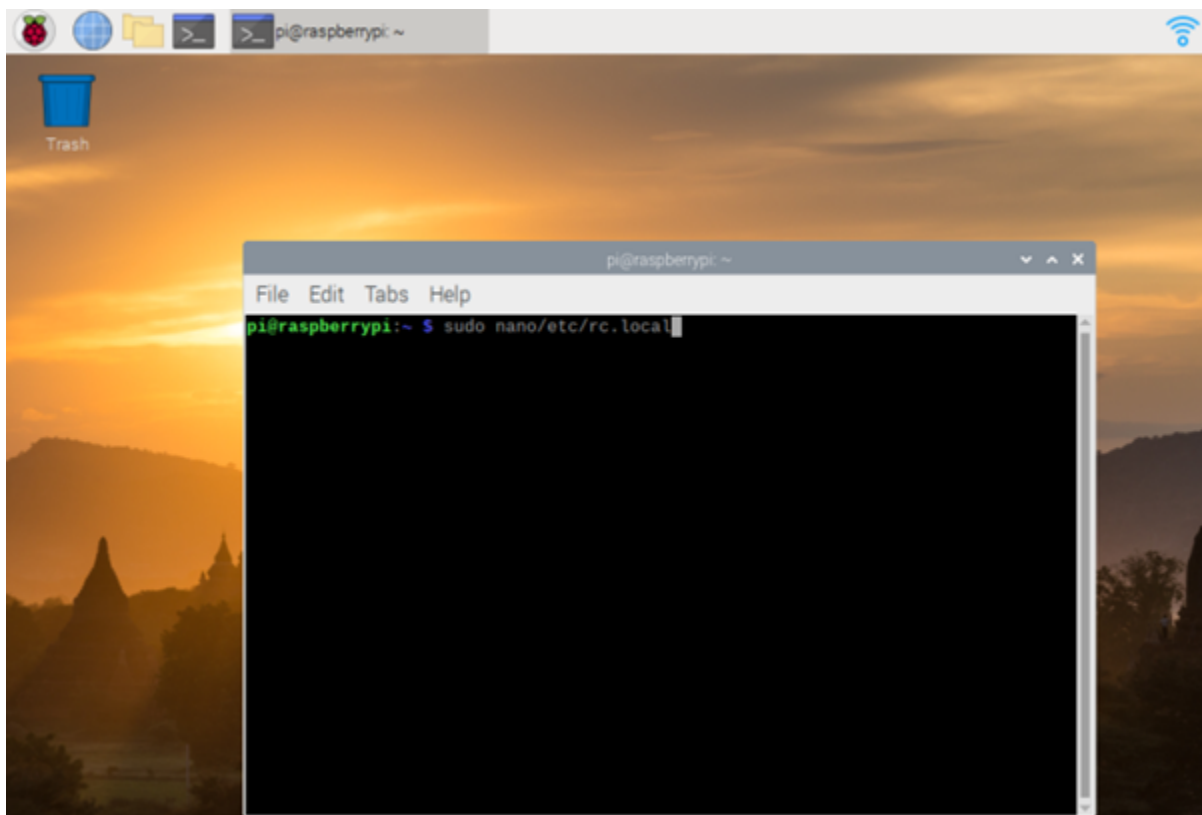
17 April, 2021

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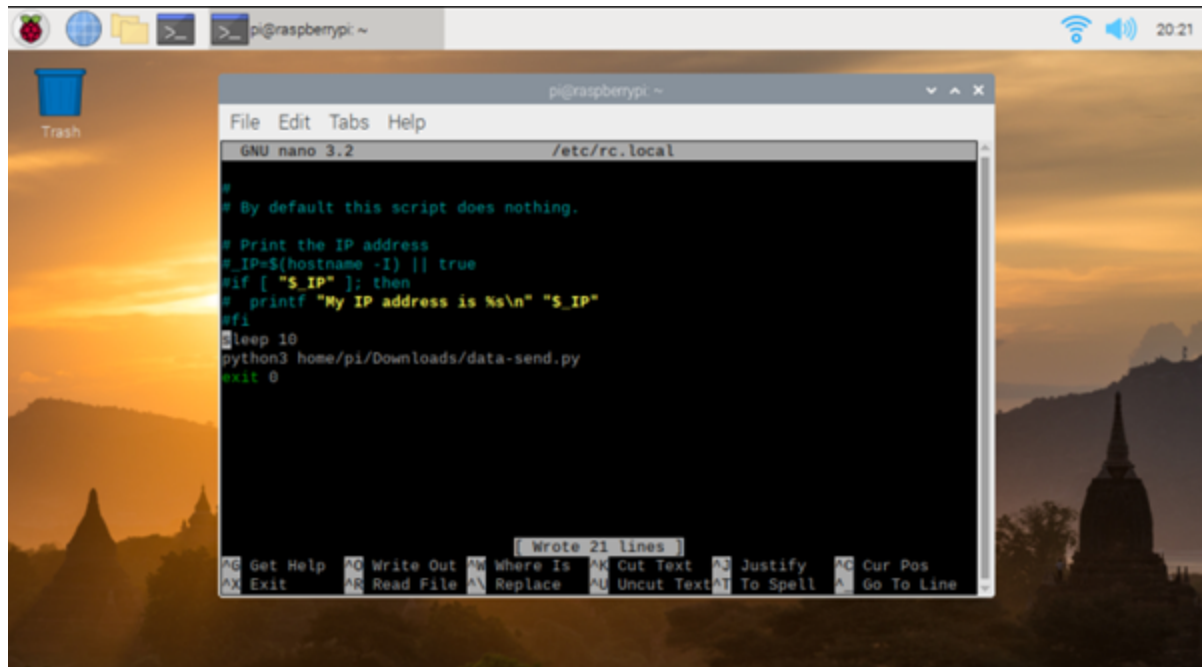
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# 1. PROGRESS & ACHIEVEMENTS

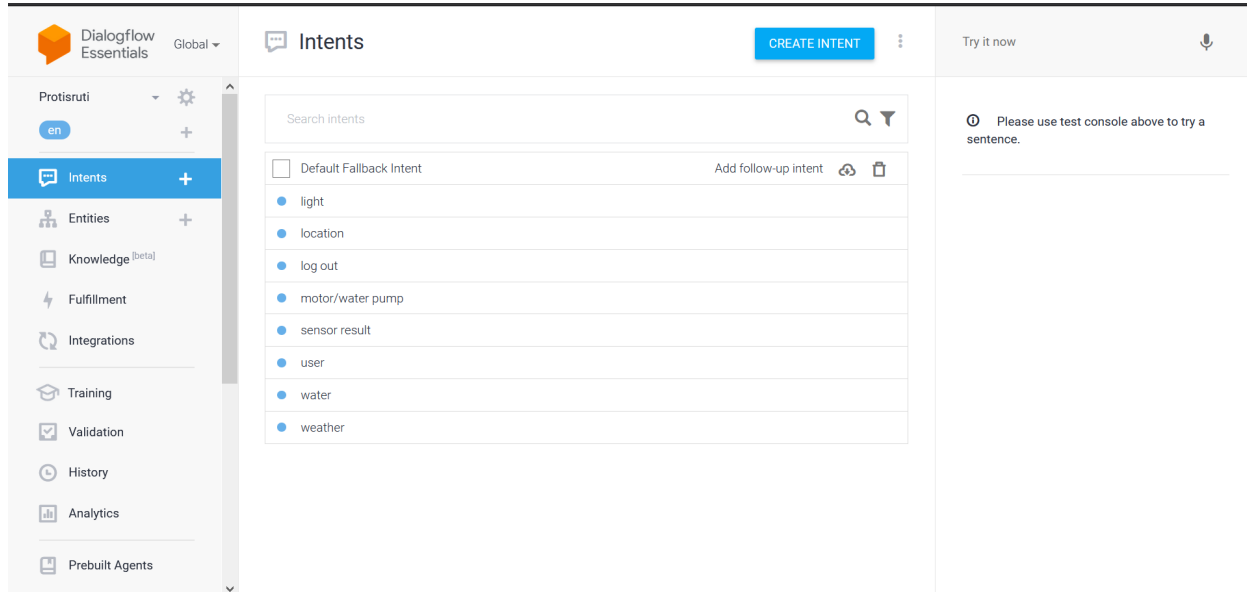
This week we completed the hardware part of this project pretty much. Finally, we did the LED part with a relay module and Light Dependent Resistor and could run the program at start-up after lots of effort. And also some basic software application parts were done like the homepage. For the application, we thought to add a chatbot and we are working on it. In the Dialogflow Essentials, the basic intents have been added according to the services we are delivering. We tried to complete the chatbot part but couldn't finish. Our teammate is researching that. Mainly we focused on the layout more and started to work on the backend. Due to facing a lot of problems our work is delaying since this android studio is a whole new thing to us. The logo for the application is also done.



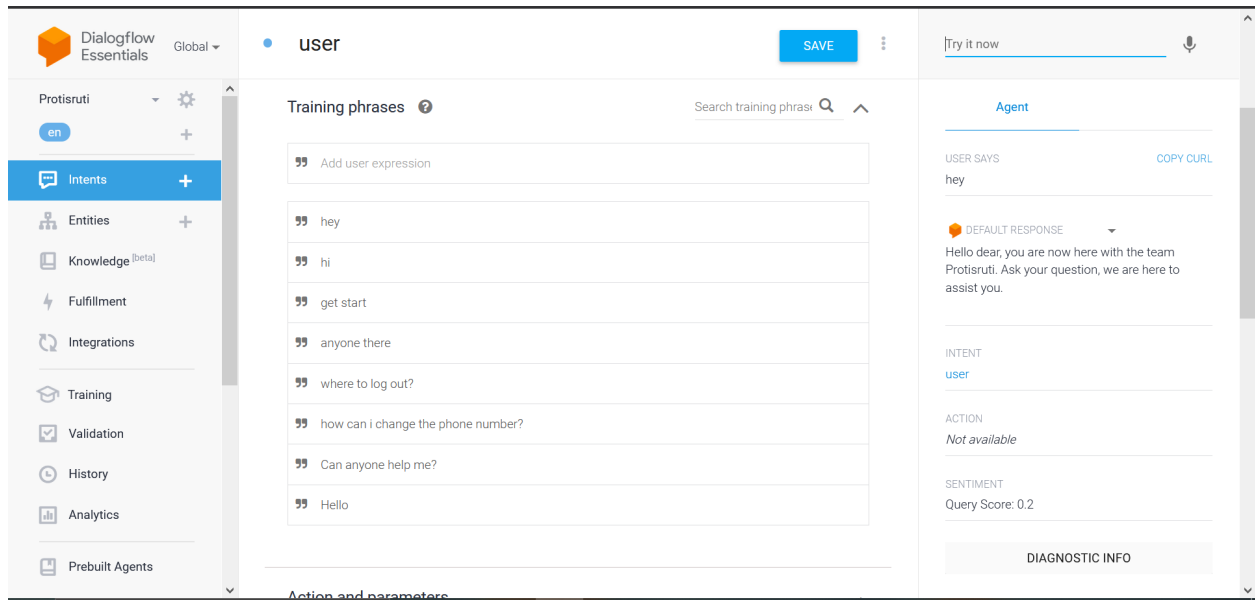
**Figure:** Command for edit in the rc.local



**Figure:** Code for Run the program at start-up



**Figure:** Dialogflow Essentials project intents



**Figure:** One of the intents



**Figure:** Logo of Protisruti

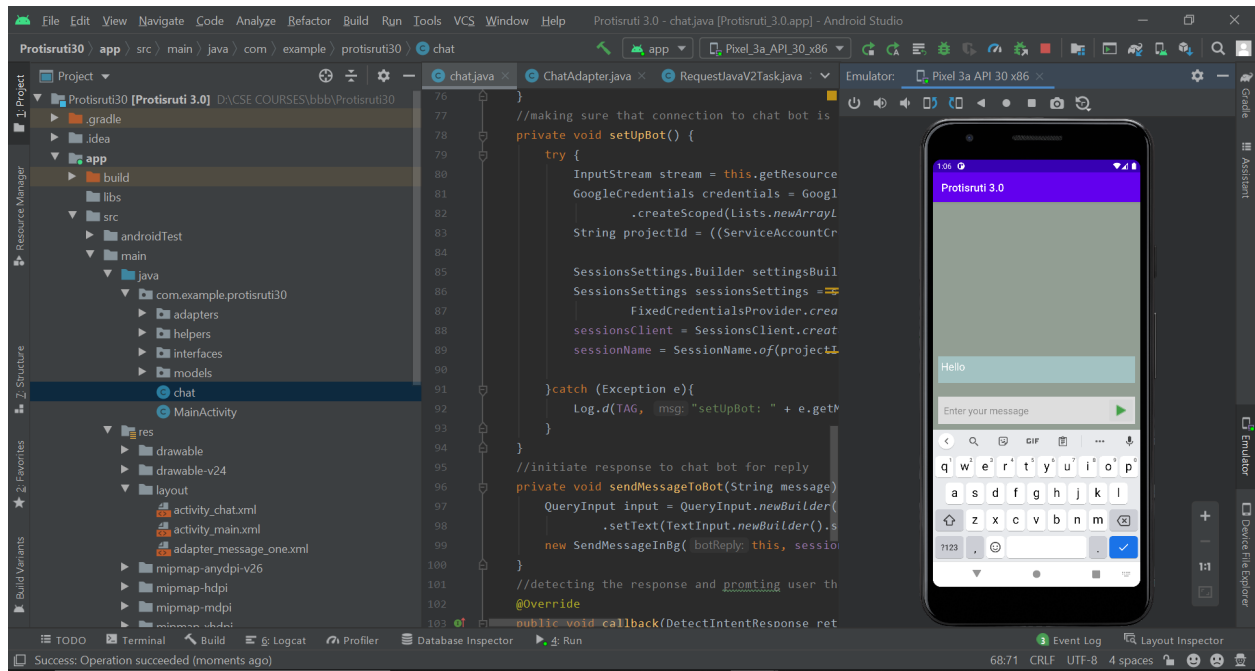


Figure: Chatbot



**Figure:** Applications Homepage(tentative)

Sirajus Salekin Nahin (Group leader), completed the hardware part of this project. Since the lockdown is happening for the past 2 weeks he himself did the finishing part all along. Ummay Ashim Laila designed the logo and for chatbot made the intents in the Dialogflow Essentials. Samira Saif Joarder basically started working on chatbot implementation this week. She took maximum time of this week researching that how things work. This week she completed the layout part and started working on the backend. Ashraful Islam Asif has already fetched the data last week and this week he worked on the home page backend.

## 2. OBSTACLES

We faced problems running the program at startup. As the program is sending data over the Internet first it needed to connect to the Wi-Fi and then run the program. Basically, the program needed to delay for a few seconds before start-up, After trying every method we were finally able to delay the program at start-up. Since the android studio is a massive software we are facing device issues a lot. We mainly faced major complications in running the chatbot. There were a lot of problems in gradle.build. We had to add a lot of various dependencies that should not be necessary to add to run or should be given by android studio by default. There were various unknown bugs like the google-services plugin shows errors that should not be an error and many more. After running the app somehow, now the chatbot isn't giving any response and we are trying to fix it. For the homepage backend using Open Weather Map API was trouble. But after following the API documentation[<https://openweathermap.org/current>], it solved. Another problem was connecting Firebase with the recycler view adapter, it also solved with the documentation.

## 3. MILESTONES AND REPORTING

[Tentative week counts from assigning date]

MILESTONE	TASKS	DATE
Week-1	Analysis and design stage( before assigning), gather equipment and create a work plan, start implementing	06/03/2021
Week-2	.....Do.....	
Week-3	Work for real-time database	
Week-4	Progress Report Due	26/03/2021
Week-6	IoT based work start and Android (Mobile Application)	01/04/2021
Week-7	IoT based work start and Android (Mobile	10/04/2021



	Application)	
Week-8	IoT based work start and Android (Mobile Application) <div>Project Report Due</div>	17/04/21
Week-9	.....Do.....	
Week-10	Testing and Bug fixing	
Week-11	Present the final Project	