Apr 6, 2022

INTERNSHIP COMPLETION CERTIFICATE

To whom it mayconcern,

This is to certify that Kavya M (4VZ20MC042) of the MCA department has completed their one-month VIRTUAL internship with ClointFusion, from 1st March till 31st March 2022.

During this period,theywere exposed to the following tasks:

1) Introductionto RPA
2) Installation& Testing of ClointFusionEXE - India's Python-based RPA platform Build software BOTs using ClointFusion's Drag & Drop BOT development

We thank the management for this opportunityand look forward to manysuchinitiatives.

ClointFusion is India's own Python-based RPA platform and it is also into manpower placement services. We are happy to inform you that on April 2nd, 2022 ClointFusion got rebranded as PyBOTs Pvt Ltd - https://www.pybots.ai

Team ClointFusion,

Anil Kumar M A
CEO, ClointFusion

+91 93277 29553 info@cloint.com www.cloint.com
306, Ocean Complex, Nr. Genda Circle, Vadiwadi, Vadodara - 390023.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"JNANA SANGAMA", BELAGAVI-590018

Internship Report

Submitted in partial fulfillment for the award of degree of

MASTER OF COMPUTER APPLICATIONS

Submitted by:

KAVYA M

4VZ20MC042

Under the Guidance of

Prof.Yogesh.T

Assistant Professor

Dept. of Computer Science & Engineering, MCA Programme VTU, PG Studies, Mysuru-570029

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Dept. of CSE MCA Programme

Centre for Post Graduate Studies

Sathagalli, Mysuru – 570029

2021-2022

DECLARATION

I, Kavya M**,** student of 4th semester, **Dept. of CSE MCA Programme, Postgraduate Studies, VTU Mysuru,** bearing **4VZ20MC042** hereby declare that the Internship entitled **"RPA PLATFORM BASED ON PYTHON"** has been carried out by me under the guidance of Internal Guide,

Prof.Yogesh.T, Assistant Professor, Dept. of CSE (MCA Programme), VTU, PG Studies, Mysuru-570029, submitted in partial fulfillment of the requirements for the award of the degree of **Master of Computer Applications** by the **Visvesvaraya Technological University, Belagavi** during the academic year 2021-2022. The report has not been submitted to any other University or Institute for the award of any other degree, diploma, fellowship, etc.

Place: Mysuru **KAVYA M**

Date: **4VZ20MC042**

Signature

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Dept. of CSE (MCA Programme)

Centre for Post Graduate Studies

Sathagalli, Mysuru – 570029

INTERNSHIP CERTIFICATE

This is to certify that ***Kavya M*** *bearing* ***4VZ20MC042*** *has satisfactorily completed the* ***Internship – 20MCA43*** *entitled* ***RPA PLATFORM BASED ON PYTHON*** *in the academic year 2021-22 as prescribed by VTU for IV Semester of Master of Computer Applications. It is certified that all the corrections/suggestions indicated during Internal Assessment have been incorporated in the report. The Internship report has been approved as it satisfies the academic requirements in respect of Internship work prescribed for the Master of Computer Applications degree.*

Signature of Guide
Prof.Yogesh.T
Assistant Professor
Dept. of CSE, MCA Programme
VTU, PG Studies, Mysuru-570029.

Signature of Program Coordinator
Dr. Thimmaraju S N
Program Coordinator,
Dept. of CSE
VTU, PG Studies, Mysuru-570029.

EXTERNAL VIVA

Name of the Examiners	Signature with date
1.	
2.	

Acknowledgements

I take this opportunity to sincerely record my gratitude to those who have made this internship report possible.

First and foremost, I thank ***God Almighty*** *for the blessings he has bestowed upon me and for giving me the strength, wisdom, health, courage, and confidence to achieve this work.*

I must express the unbound gratitude to ***Honorable Vice Chancellor, Registrar, Registrar (Evaluation),*** *Visvesvaraya Technological University for their support throughout the internship.*

I express my sincere thanks to ***Dr. Thimmaraju S N, Regional Director (RO) Mysuru & Program Coordinator,*** *Dept. of CSE, VTU, PG Studies, Mysuru-570029, for the support and cooperation during the period of this work.*

It has been a great privilege for me to work under the guidance of, **Prof.Yogesh.T** *, Assistant Professor, Dept. of CSE MCA Programme, VTU, PG Studies, Mysuru-570029. I express my heartfelt gratitude to my guide* **Prof.Yogesh.T** *.Words are insufficient to appreciate my teacher for his whole hearted involvement, inspiration and constant support during the entire period of Internship work. I especially thank him for the exemplary guidance, monitoring, constant encouragement, understanding, care and empathy*

I express my sincere thanks to ***Internship & Project Coordinator, all the teaching & non- teaching staff*** *of the Dept. of CSE MCA Programme, VTU, PG Studies, Mysuru-570029, for the support and cooperation during the period of this work.*

I am extremely fortunate to have such caring and loving parents, ***Mr. Venkatesh Y*** *and* ***Ms. Adilakshmi****. They deserve special mention for providing me with all the opportunities to explore my potential and pursue my dreams ever since I was a child. I thank God Almighty for blessing me with such affectionate parents.*

I am extremely grateful to all my teachers and well-wishers. Finally, I would like to thank everybody who was behind the fulfillment of my internship work.

Above all, I praise God, the almighty for providing me with this opportunity and granting me the capability to proceed successfully.

Kavya M

4VZ20MC042

CONTENTS

ABSTRACT

Robotic process automation (RPA) is a software technology that makes it easy to build, deploy, and manage software robots that emulate humans' actions interacting with digital systems and software. Just like people, software robots can do things like understand what's on a screen, complete the right keystrokes, navigate systems, identify and extract data, and perform a wide range of defined actions. But software robots can do it faster and more consistently than people, without the need to get up and stretch or take a coffee break.

Robotic process automation streamlines workflows, which makes organizations more profitable, flexible, and responsive. It also increases employee satisfaction, engagement, and productivity by removing mundane tasks from their workdays. RPA is non-invasive and can be rapidly implemented to accelerate digital transformation. And it's ideal for automating workflows that involve legacy systems that lack APIs, virtual desktop infrastructures (VDIs), or database access

CHAPTER 2

COMPANY- PROFILE

1. About ClointFusion:

1.1 Organization Information:

Clointfusion is a professionally managed company with years of industry experience in developing and delivering Enterprise specific for Software BOT development as an Open Source project using the latest technologies.

1.2 Organization Mission:

To develop the world's best cost-effective and seamless digital workforce RPA platform. We think, in this modern world, Automation is a fundamental right for common Man. We believe that the world is a better place where people can be more productive and more satisfied.

Learning Objectives/Internship Objectives:

- Introduction to RPA
- Installation of ClointFusion - India's Python-based RPA platform
- Build software BOTs using ClointFusion's Drag & Drop BOT development tool
- Build software BOTs using My Auto-pylot

CHAPTER 2

ABOUT THE DEPARTMENT

2. INTRODUCTION

2.1 Robotic Process Automation

Robotic Process Automation (RPA) is software technology that's easy for anyone to use to automate digital tasks.

With RPA, software users create software robots, or "bots", that can learn, mimic, and then execute rules-based business processes. RPA automation enables users to create bots by observing human digital actions. Show your bots what to do, then let them do the work. Robotic Process Automation software bots can interact with any application or system the same way people do—except that RPA bots can operate around the clock, nonstop, much faster, and with 100% reliability and precision.

2.2 About RPA

Robotic Process Automation bots have the same digital skillset as people—and then some. Think of RPA bots as a Digital Workforce that can interact with any system or application. For example, bots can copy-paste, scrape web data, make calculations, open and move files, parse emails, log into programs, connect to APIs, and extract unstructured data. And because bots can adapt to any interface or workflow, there's no need to change business systems, applications, or existing processes in order to automate.

RPA bots are easy to set up, use, and share. If you know how to record video on your phone, you'll be able to configure RPA bots. It's as intuitive as hitting the record, play, and stop buttons and using drag-and-drop to move files around at work. RPA bots can be scheduled, cloned, customized, and shared to execute business processes throughout the organization.

CHAPTER 3

TASKS PERFORMED

First Week:-

3. Learn about

Technologies 3.1 Python:

Python is a general-purpose interpreted, interactive, object-oriented, and high- level programming language. It was created by Guido van Rossum during 1985-1990. Like Perl, Python source code is also available under the GNU General Public License (GPL). This tutorial gives enough understanding on Python programming language.

Python is a high-level, interpreted, interactive and object-oriented scripting language. Python is designed to be highly readable. It uses English keywords frequently where as other languages use punctuation, and it has fewer syntactical constructions than other languages.

Python is a MUST for students and working professionals to become a great Software Engineer specially when they are working in Web Development Domain. I will list down some of the key advantages of learning Python:

- **Python is Interpreted** − Python is processed at runtime by the interpreter .You do not need to compile your program before executing it. This is similar to PERL and PHP.
- **Python is Interactive** − You can actually sit at a Python prompt and interact with the interpreter directly to write your programs.
- **Python is Object-Oriented** − Python supports Object-Oriented style or technique of programming that encapsulates code within objects.
- **Python is a Beginner's Language** − Python is a great language for the beginner-level programmers and supports the development of a wide rangef applications from simple text processing to WWW browsers to games.

3.2 Characteristics of Python

Following are important characteristics of **Python Programming** −

- It supports functional and structured programming methods as well as OOP.
- It provides very high-level dynamic data types and supports dynamic type checking.
- It supports automatic garbage collection.

- It can be easily integrated with C, C++, COM, ActiveX, CORBA, and Java.

3.3 Applications of Python

As mentioned before, Python is one of the most widely used language over the web. I'm going to list few of them here:

- **Easy-to-learn** − Python has few keywords, simple structure, and a clearly defined syntax. This allows the student to pick up the language quickly.
- **Easy-to-read** − Python code is more clearly defined and visible to the eyes.
- **Easy-to-maintain** − Python's source code is fairly easy-to-maintain.
- **A broad standard library** − Python's bulk of the library is very portable and cross-platform compatible on UNIX, Windows, and Macintosh.
- **Interactive Mode** − Python has support for an interactive mode which allows interactive testing and debugging of snippets of code.
- **Portable** − Python can run on a wide variety of hardware platforms and has the same interface on all platforms.
- **Extendable** − You can add low-level modules to the Python interpreter. These modules enable programmers to add to or customize their tools to be more efficient.
- **Databases** − Python provides interfaces to all major commercial databases.
- **GUI Programming** − Python supports GUI applications that can be created and ported to many system calls, libraries and windows systems, such as Windows MFC, Macintosh, and the X Window system of Unix.
- **Scalable** − Python provides a better structure and support for large programs than shell scripting.

Second Week:-

3.4 ClointFusion

ClointFusion is a Python based RPA platform for Software BOT development as an Open Source project .It is a RPA platform that helps you automate your business processes.

Further Clointfusion is a place or a domain which we can use for creating the bots and also to develop the bots using various functions.

Through this below link we can download and install the Clointfusion Exe file.

https://anonfiles.com/7eD626Lax1/Clointfusion_Enterprise_Edition_exe

Fig 3.4.1 ClointFusion Application's Home page

Fig 3.4.2 ClointFusion Terminal Home page

When we press Open Terminal the clointfusion will open Terminal (Command prompt)

And when we press Launch Dost it will be automatically redirected to clointfusion.com

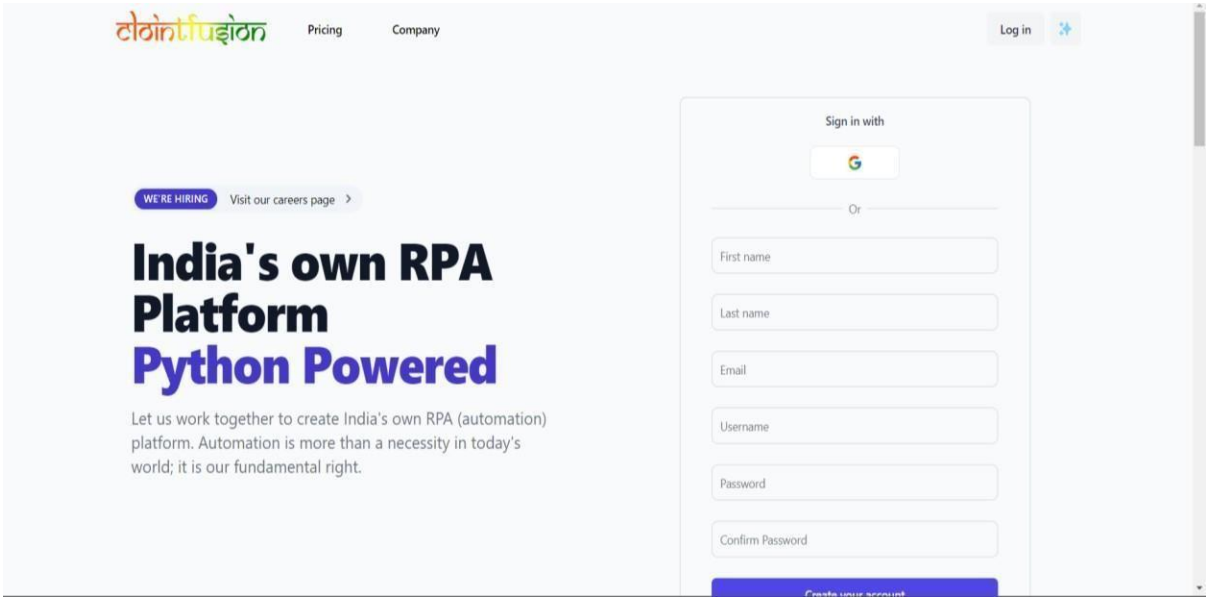


Fig 3.4.3 Clointfusion account or Login (if account already exists)

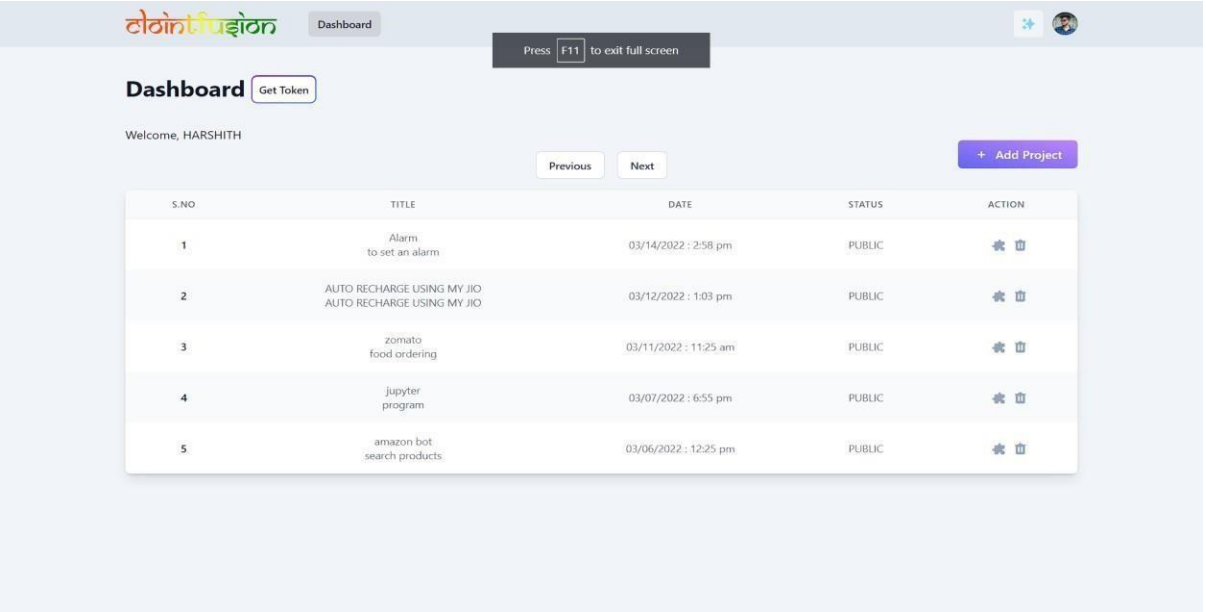


Fig 3.4.4 The Dashboard Page

Here we can register our device through getting Token i.e to set the Clointfusion Domain and our computer to work simultaneously.

And we can also create a new project by using the **+Add Project** button and giving Title, Description, Visibility Type

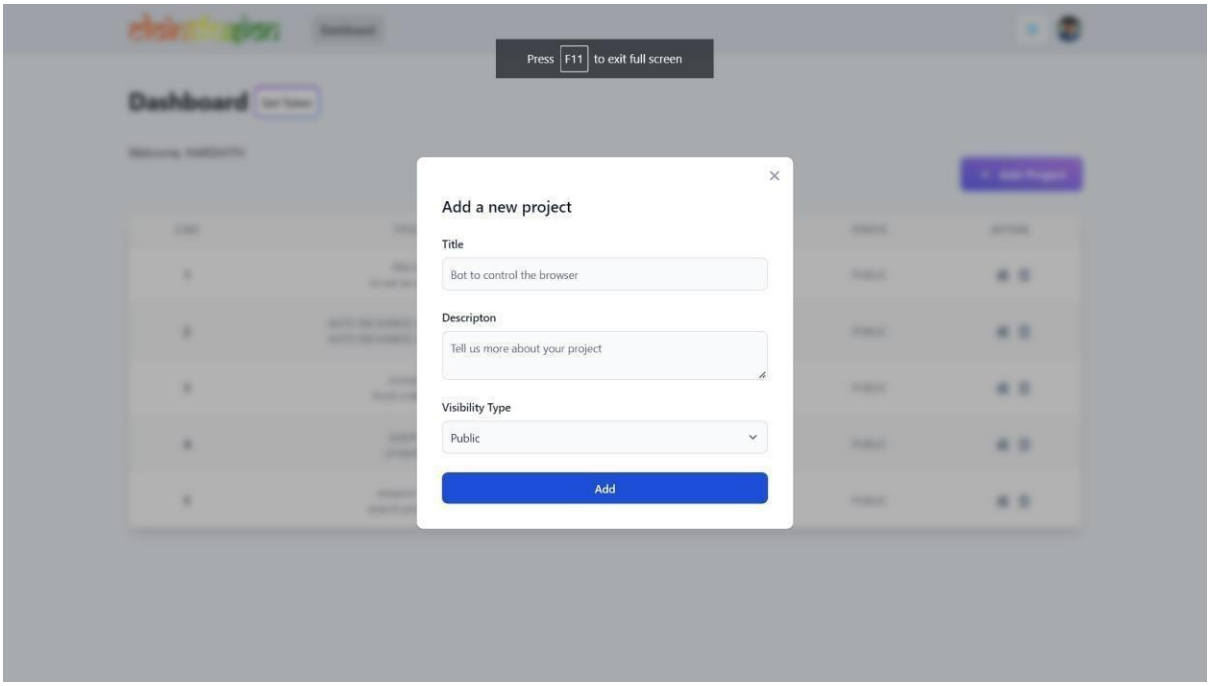


Fig 3.4.5 Home page of Clointfusion Design module

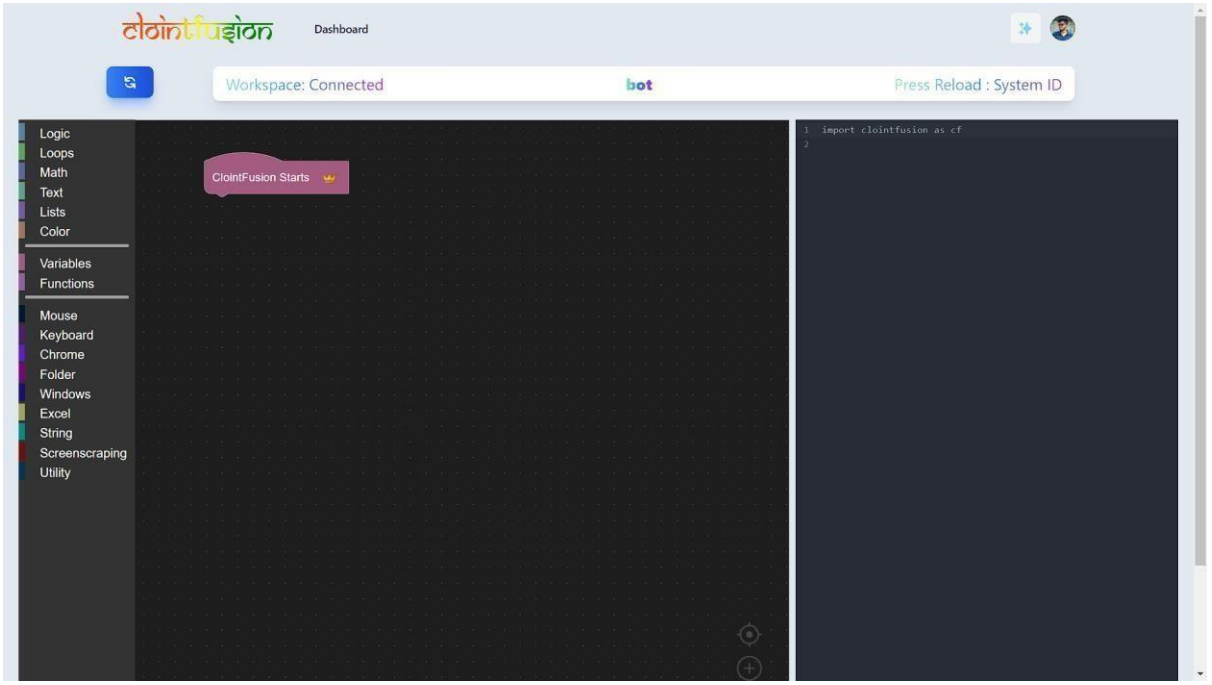


Fig 3.4.6 Home page of Clointfusion

Third week:-

3.5 BOTS CREATED:

3.5.1 Whatsapp Chatbot

3.5.2 Jupyter IDE

3.5.3 Amazon

3.5.4 My Jio

3.5.5 Zomato Bot Description and

Snapshots of the Bots

3.5.1 Whatsapp Chatbot

Whatsapp Chatbot is a bot that is created using Clointfusion and its main task of the bot is to send the message to the selected contact. Used Chrome Functionand with certain Time pause.

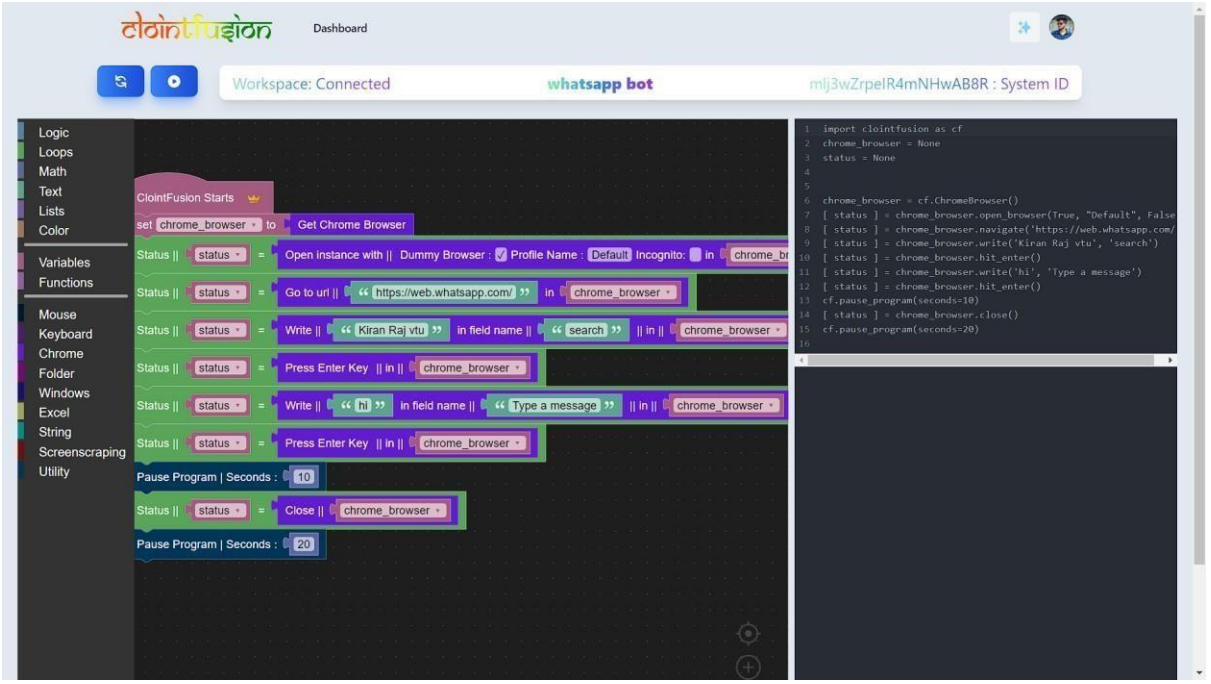


Fig 3.5.1 a. Dashboard includes Whatsapp Bot

Code

```
import clointfusion as cf
chrome_browser = None
status = None
```

```
chrome_browser = cf.ChromeBrowser()

[ status ] = chrome_browser.open_browser(True, "Default", False)

[ status ] = chrome_browser.navigate('https://web.whatsapp.com/')

[ status ] = chrome_browser.write('Kiran Raj vtu', 'search')

[ status ] = chrome_browser.hit_enter()

[ status ] = chrome_browser.write('hi', 'Type a message')

[ status ] =

chrome_browser.hit_enter()

cf.pause_program(seconds=10) [

status ] = chrome_browser.close()

cf.pause_program(seconds=20)
```

3.5.1 Snapshots

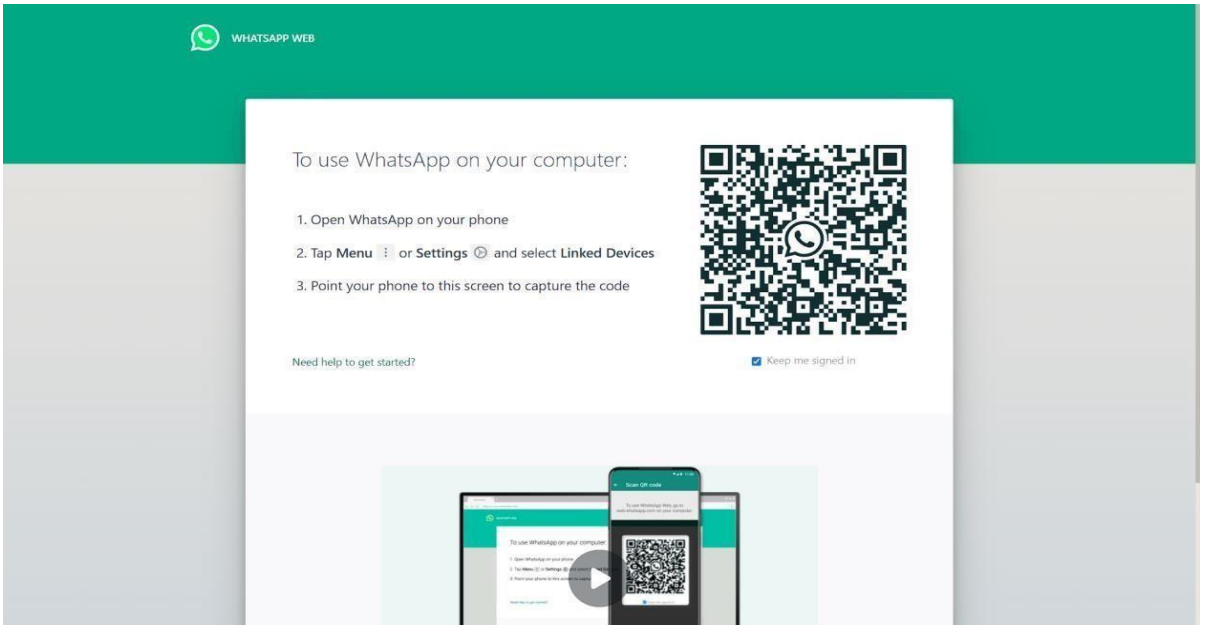


Fig 3.5.1 b. Dashboard includes Wattsap Bot

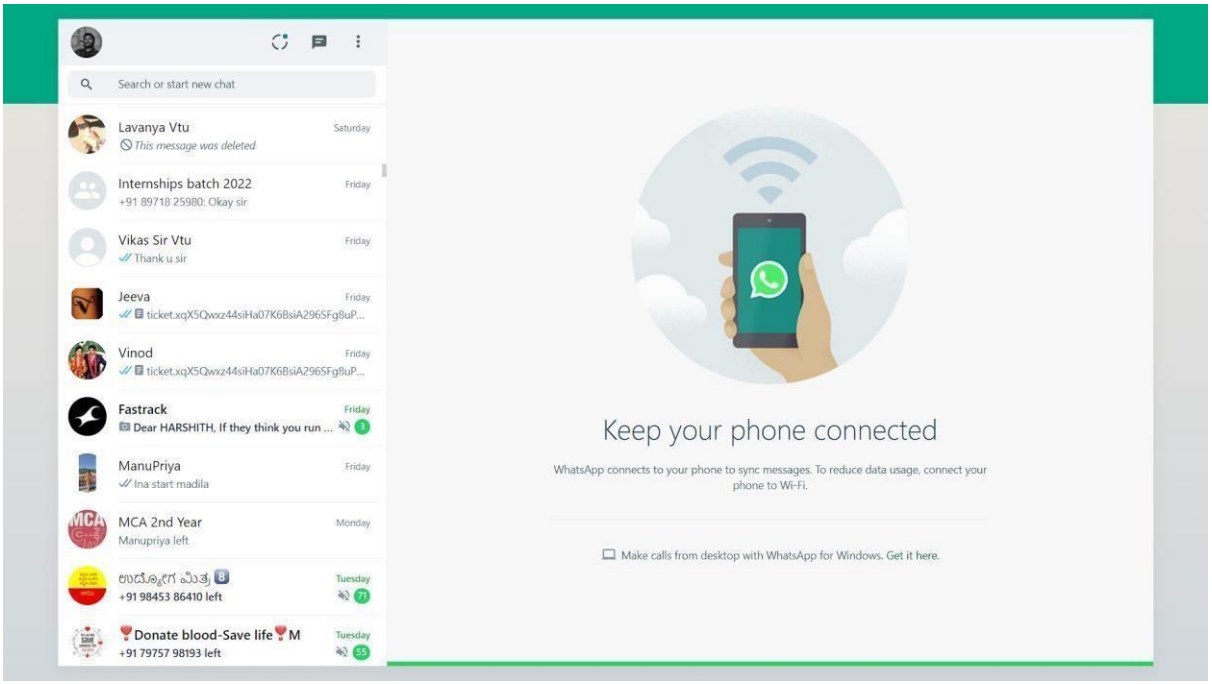


Fig 3.5.1 c. Dashboard includes Whatsapp Bot

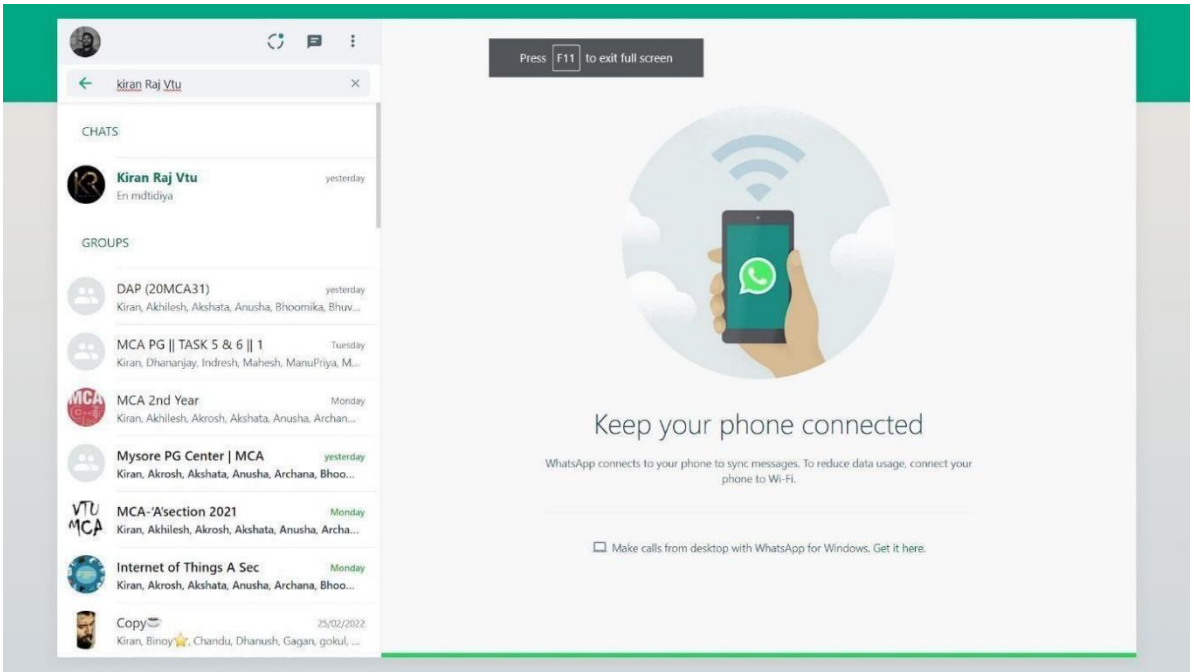


Fig 3.5.1 d. Dashboard includes Whatsapp Bot

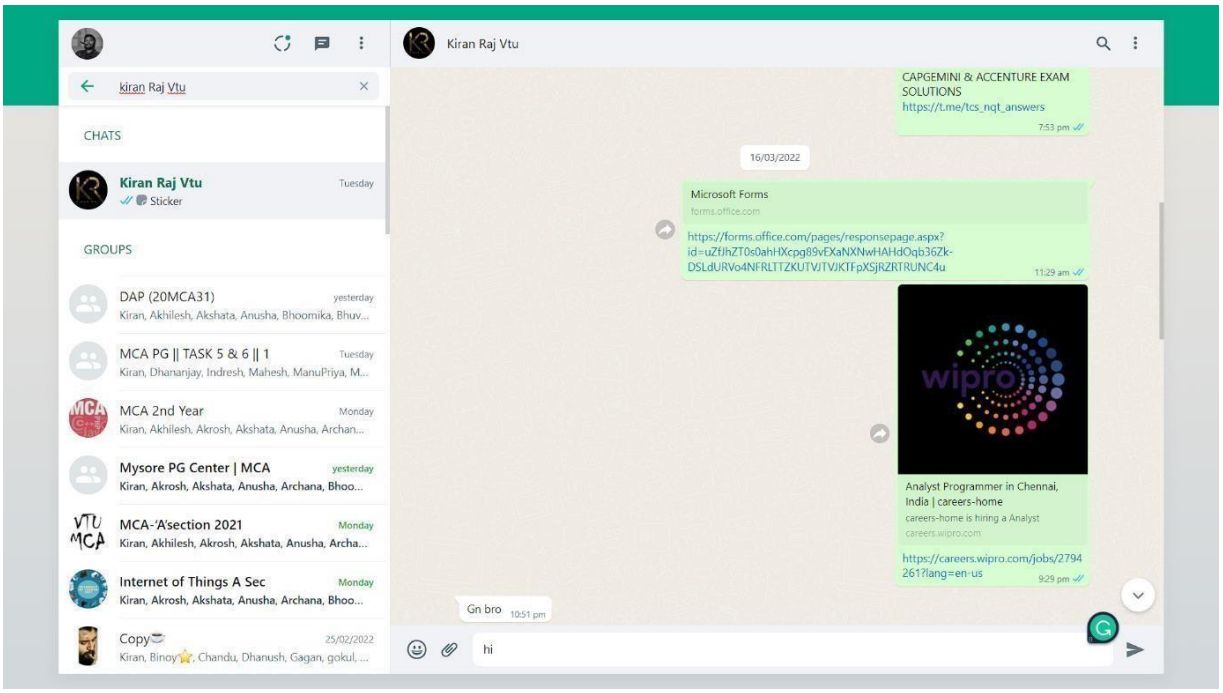


Fig 3.5.1 e. Dashboard includes Whatsapp Bot

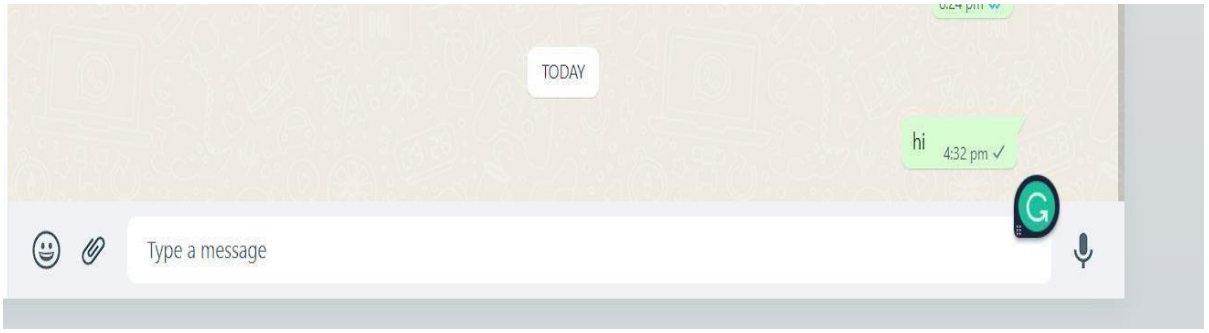


Fig 3.5.1 f. Dashboard includes Whatsapp Bot

3.5.2 Jupyter IDE

- Created bot for Opening a server connection and writing the program in Jupyter IDE (Chrome)

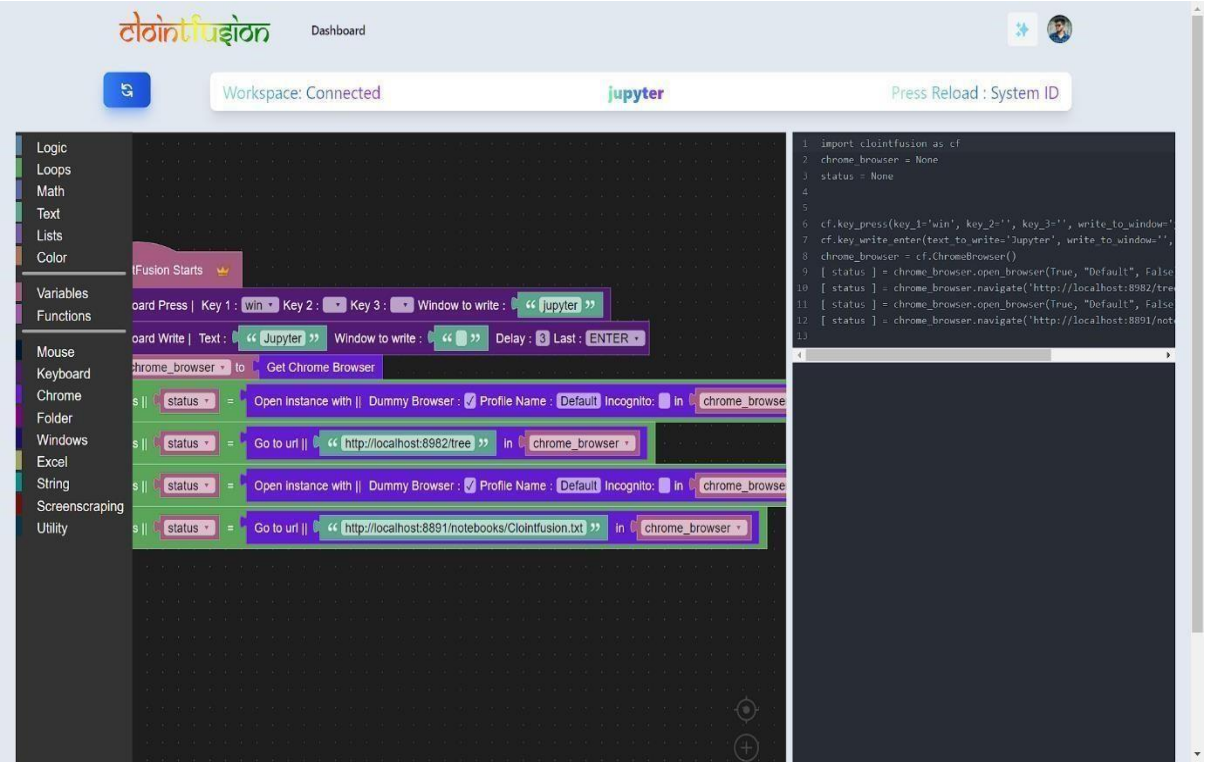


Fig 3.5.2 a. Open Jupyter Notebook in Chrome using Cloint Fusion exe

Code:

```
import clointfusion as cf

chrome_browser = None

status = None

cf.key_press(key_1='win', key_2='', key_3='', write_to_window='jupyter')

cf.key_write_enter(text_to_write='Jupyter', write_to_window='',
delay_after_typing=3, key='e')

chrome_browser = cf.ChromeBrowser()

[ status ] = chrome_browser.open_browser(True, "Default", False)

[ status ] = chrome_browser.navigate('http://localhost:8982/tree')
[ status ] = chrome_browser.open_browser(True, "Default", False)

[status]=chrome_browser.navigate('http://localhost:8891/notebooks/Clointfusion.txt')
```

3.5.2 Snapshots

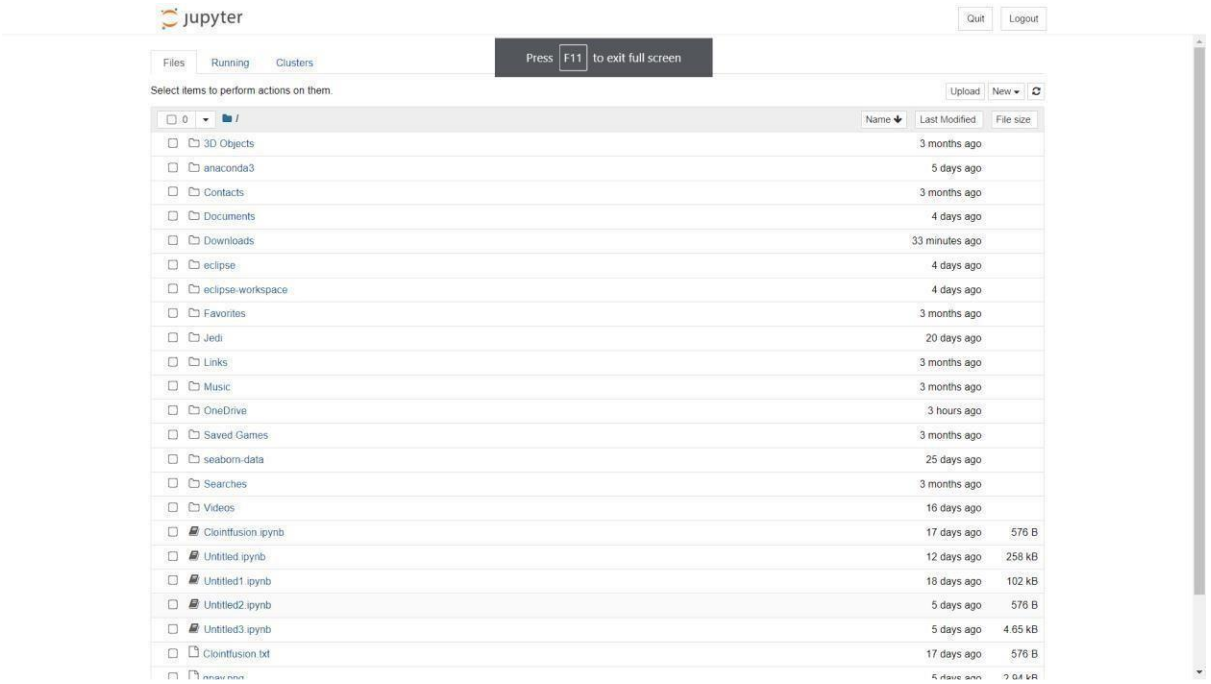


Fig 3.5.2 b. Opened Jupter Notebook

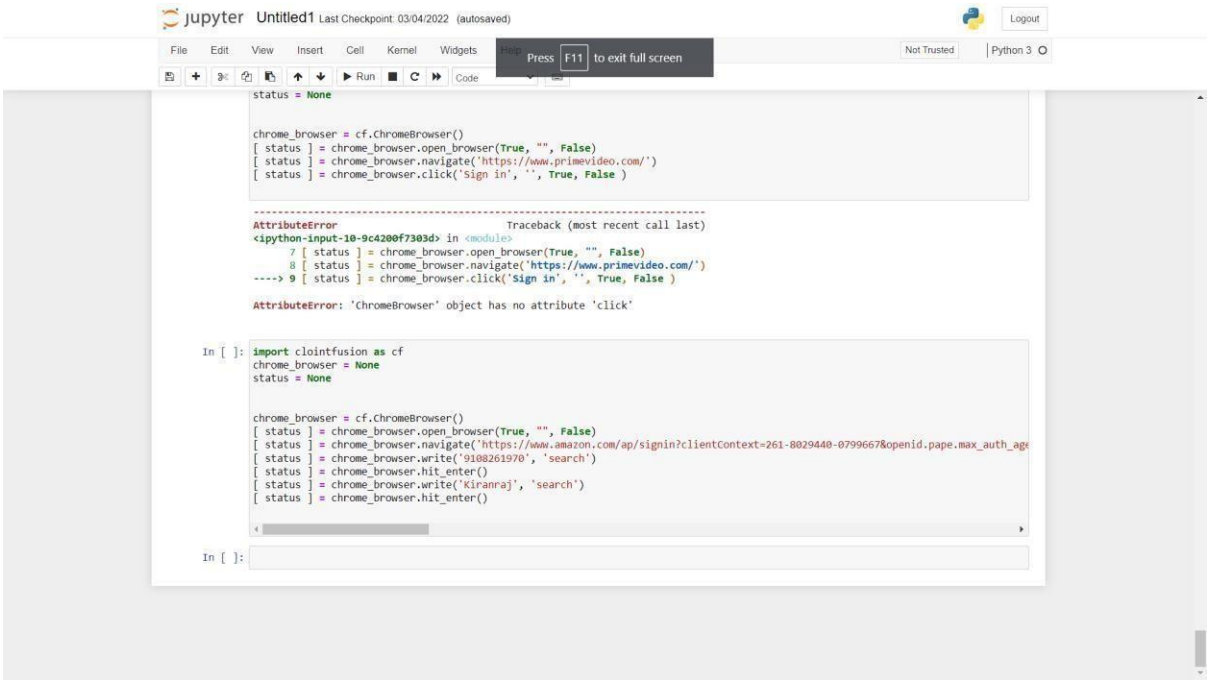


Fig 3.5.2 c. Opened Jupter Notebook

3.5.2 Amazon

Created a bot that logs into the in Amazon

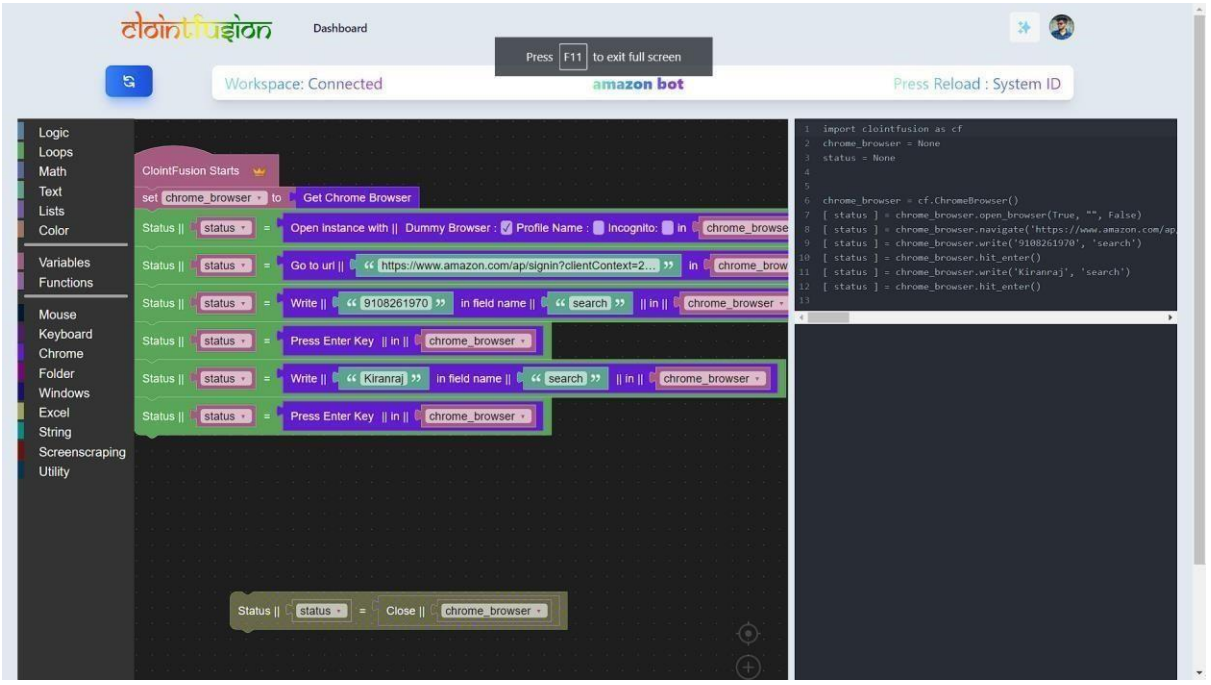


Fig 3.5.3 code to open Amazon

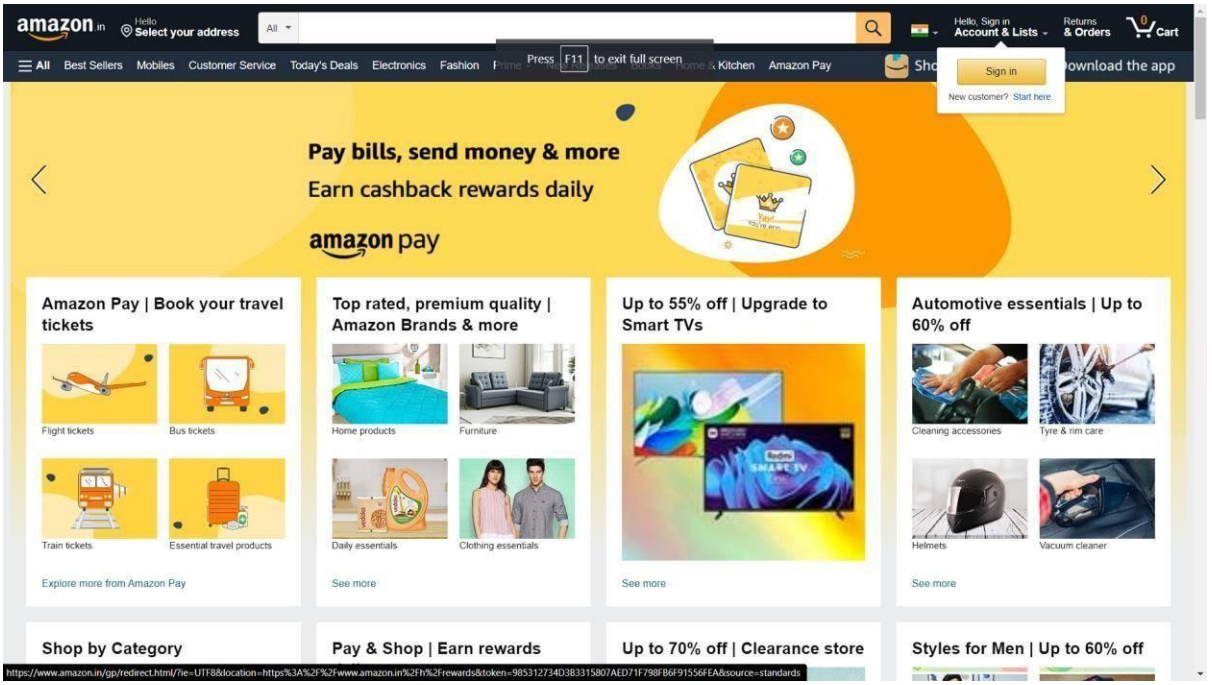
Code:

```
import clointfusion as cf chrome_browser =
None
status = None chrome_browser =
cf.ChromeBrowser()
[ status ] = chrome_browser.open_browser(True, "", False)
[status]=chrome_browser.navigate('https://www.amazon.com/ap/signin?clientC
ontext=261www.primevideo.com%%2Fauth%2F2.0%2Fidentifier_select&openid.ns=http%3
A%2F%2Fspecs.open id.net%2Fauth%2F2.0')
[ status ] = chrome_browser.write('7026349464', 'search')[ status] = chrome_browser.hit_enter()
```

[status] = chrome_browser.write('Kiranraj', 'search')[status]

= chrome_browser.hit_enter()

3.5.3 Snapshots



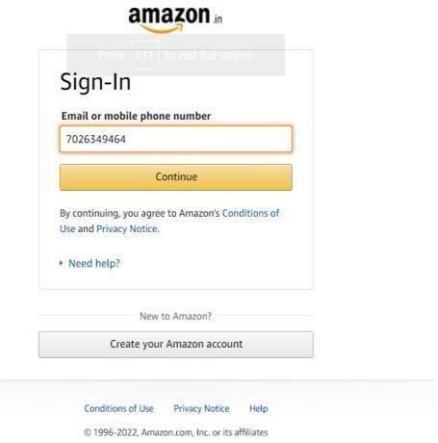


Fig 3.5.3 a. Amazon Login Homepage

3.5.3 My Jio

Recharge Using My-JioWhen we have no time for recharging we simply run the code.that's itand It will automatically recharge the selected mobile number.

Code:

```
import clointfusion as cf chrome_browser =
None
status = None
data = None

chrome_browser = cf.ChromeBrowser()

[ status ] = chrome_browser.open_browser(True, "Default", False)

[ status ] = chrome_browser.navigate('https://www.jio.com/dashboard/')[ status ] =
chrome_browser.click('Log in', '', False, False )
[ status ] = chrome_browser.click('Recharge', '', False, False )[ status ]
= chrome_browser.hit_enter()
[ status ] = chrome_browser.write('7026349464', 'Mobile Number')[ status ] =
chrome_browser.hit_enter()
[ status ] = chrome_browser.click('4G Data Voucher', '', False, False )[ status ] =
chrome_browser.click('Buy', '', False, False )
[ status ] = chrome_browser.click('Google Pay', '', False, False )[ status ] =
chrome_browser.write('harshithyv', 'Enter UPI ID') [ status ] =
chrome_browser.hit_enter()
[ status ] = chrome_browser.click('Pay ₹121', '', False, False )
```

3.5.4 Snapshots

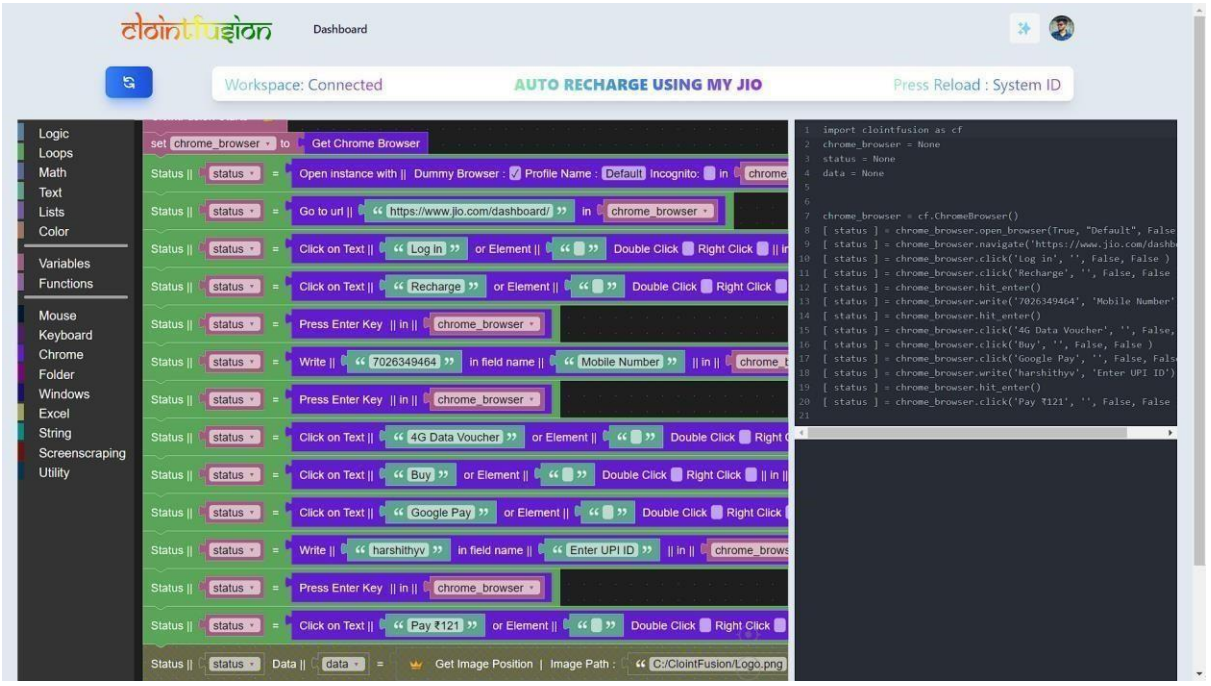


Fig 3.5.4 a. Dashboard code for my jio

Fig 3.5.4 b. Home page of my jio

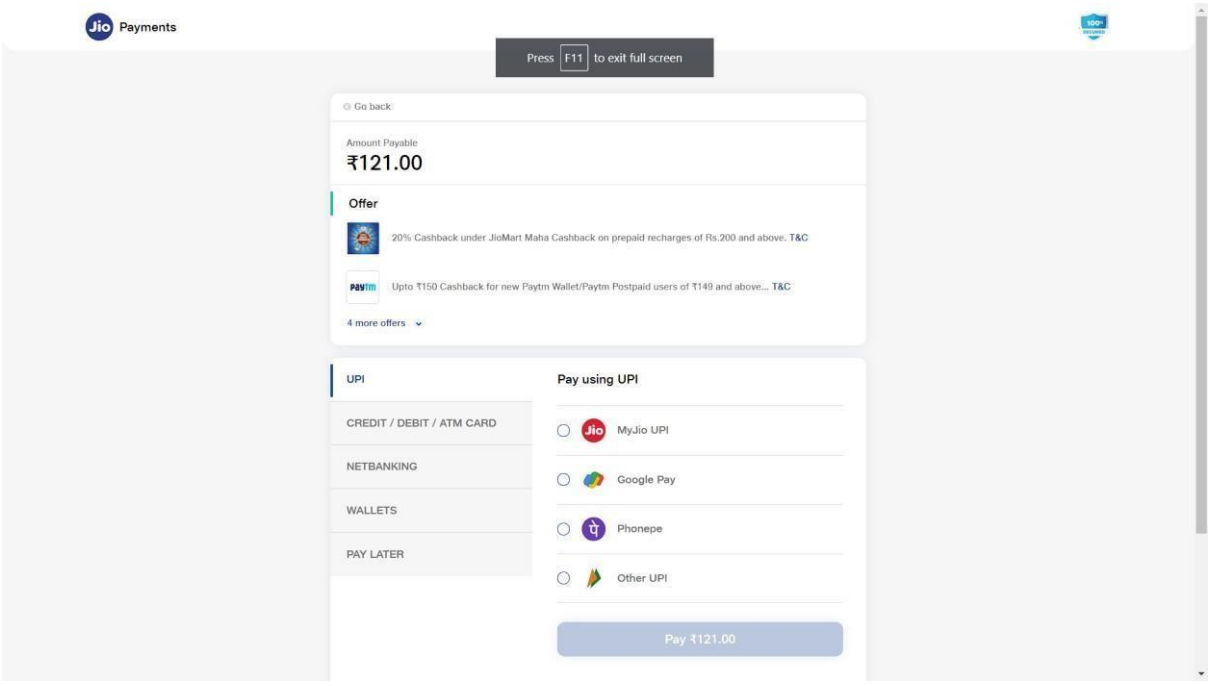


Fig 3.5.4 c. my jio payment page

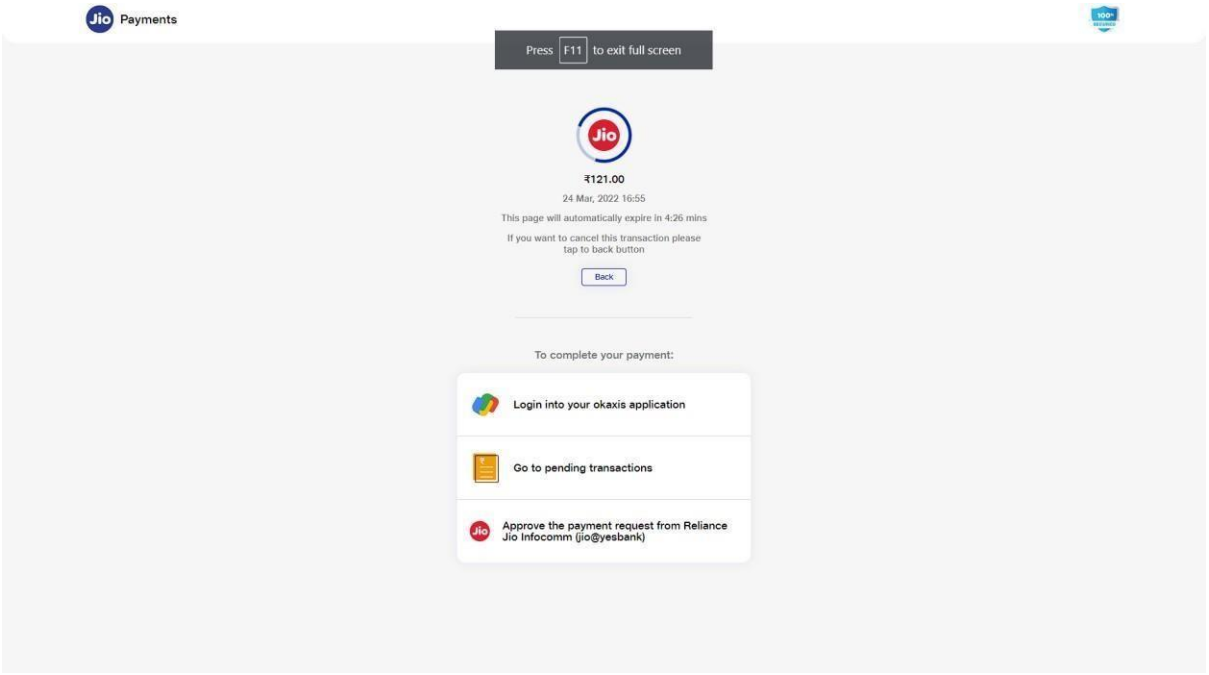


Fig 3.5.4 d. my jio payment

3.5.4 Zomato Bot

It will automatically logs in through the zomato account and searches forthe food or restaurant.

Code

```
import clointfusion as cf chrome_browser =
None
status = None
chrome_browser = cf.ChromeBrowser()

[ status ] = chrome_browser.open_browser(True, "HARSHITH V", False)[ status ] =
chrome_browser.navigate('https://www.zomato.com/Mysore') cf.pause_program(seconds=5)
[ status ] = chrome_browser.click('Log in', '', False, False )

[ status ] = chrome_browser.write('7026349464', 'Phone number')
cf.pause_program(seconds=5)
[ ] = chrome_browser.click('Biriyani', '', False, False )

[ ] = chrome_browser.click('Taj Biriyani', '', False, False )[ status ] =
chrome_browser.key_press("enter", "")
```

3.5.5 Snapshots

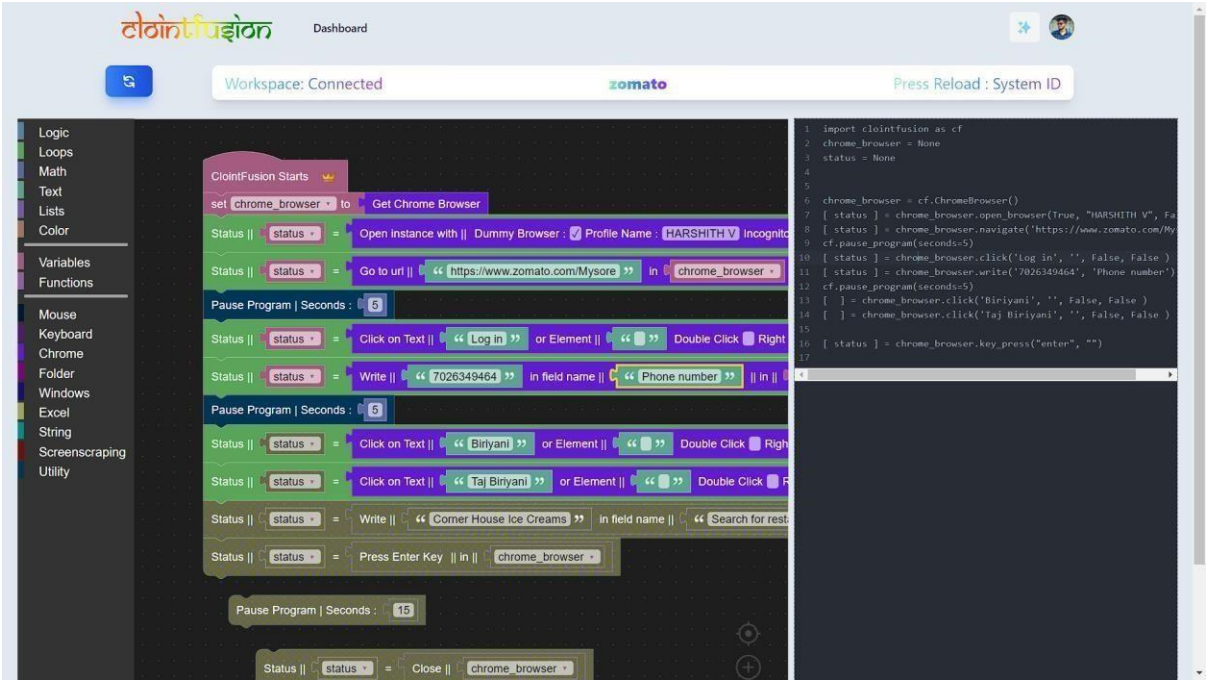


Fig 3.5.5 a. Dashboard for Zomato

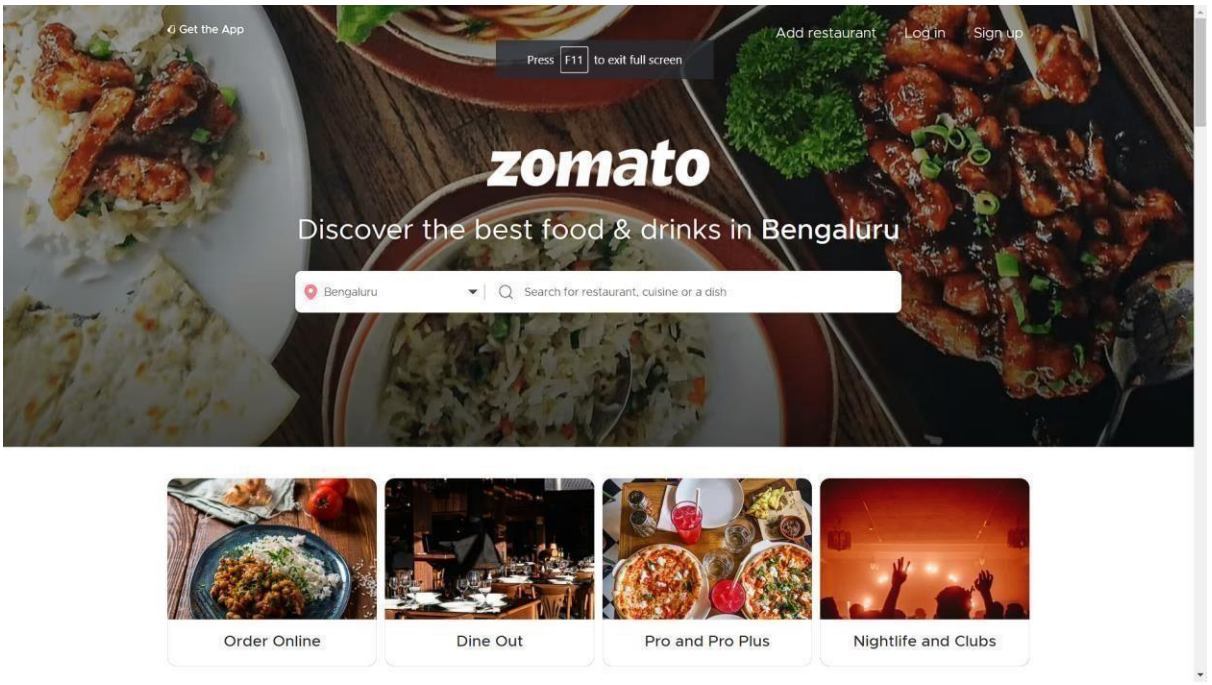


Fig 3.5.5 b. Zomato home page

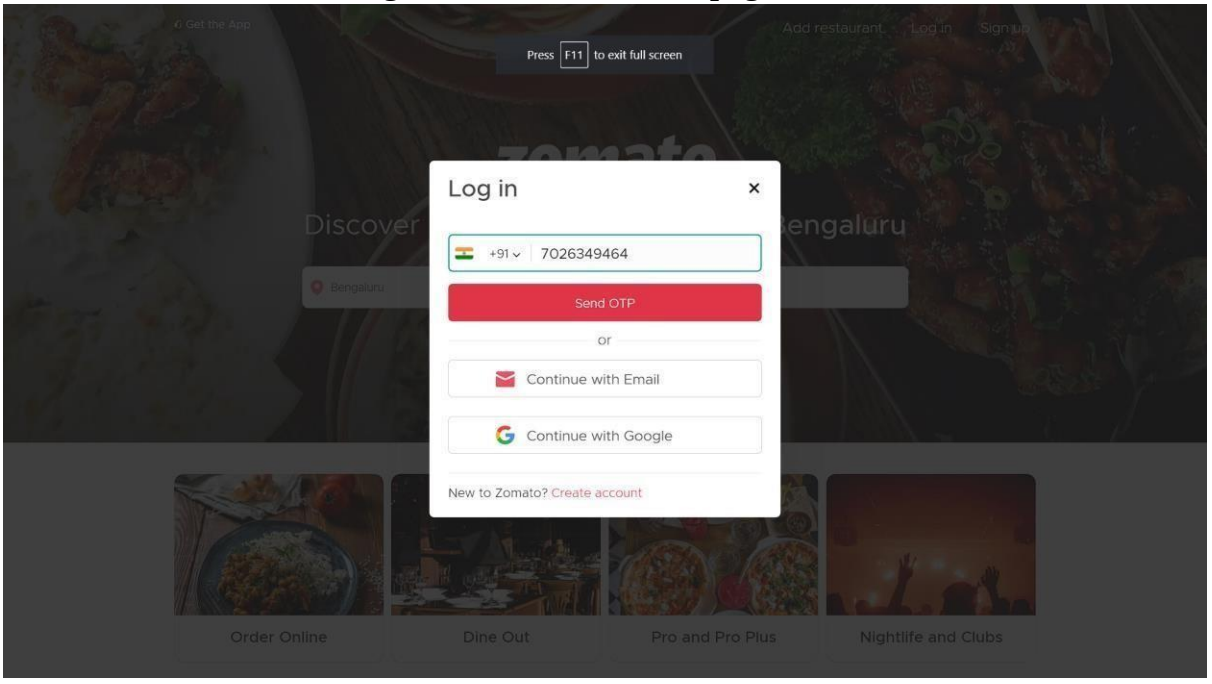


Fig 3.5.5 c. Zomato login page

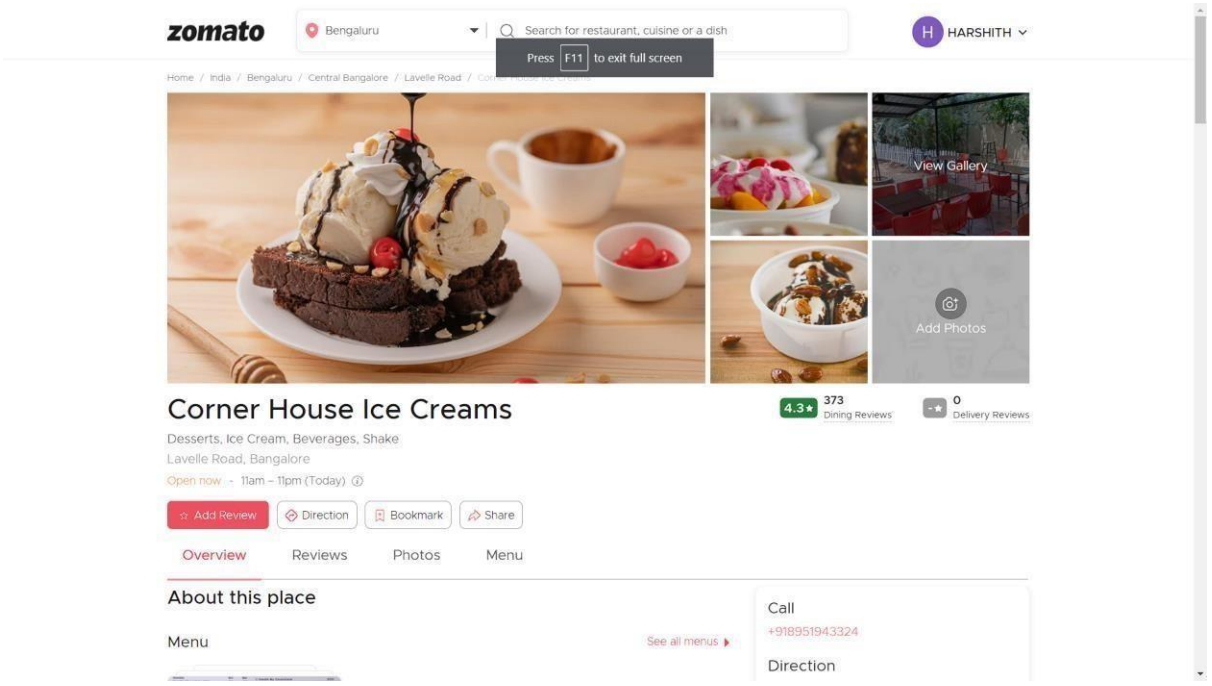


Fig:**3.5.5 d. Zomato home page**

Fourth week:-

3.6 My-Autopylot

Auto-Pylot is a Python based RPA platform for Software BOT development as an Open Source project.

PyBots is an Indian firm based in Vadodara, Gujarat. My-AutoPylot is a product developed based on Python. It's an RPA framework for developers and common people to create Software BOTs. Using AI, we're working on Common Man's RPA.

Installing of my-Autopylot

pip install -U my-autopylot

Run this command in Command prompt or Power Shell **Importing**

import my_autopylot as ap

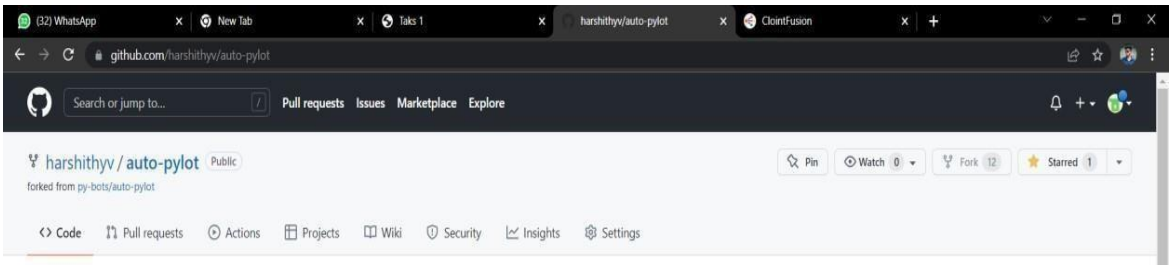
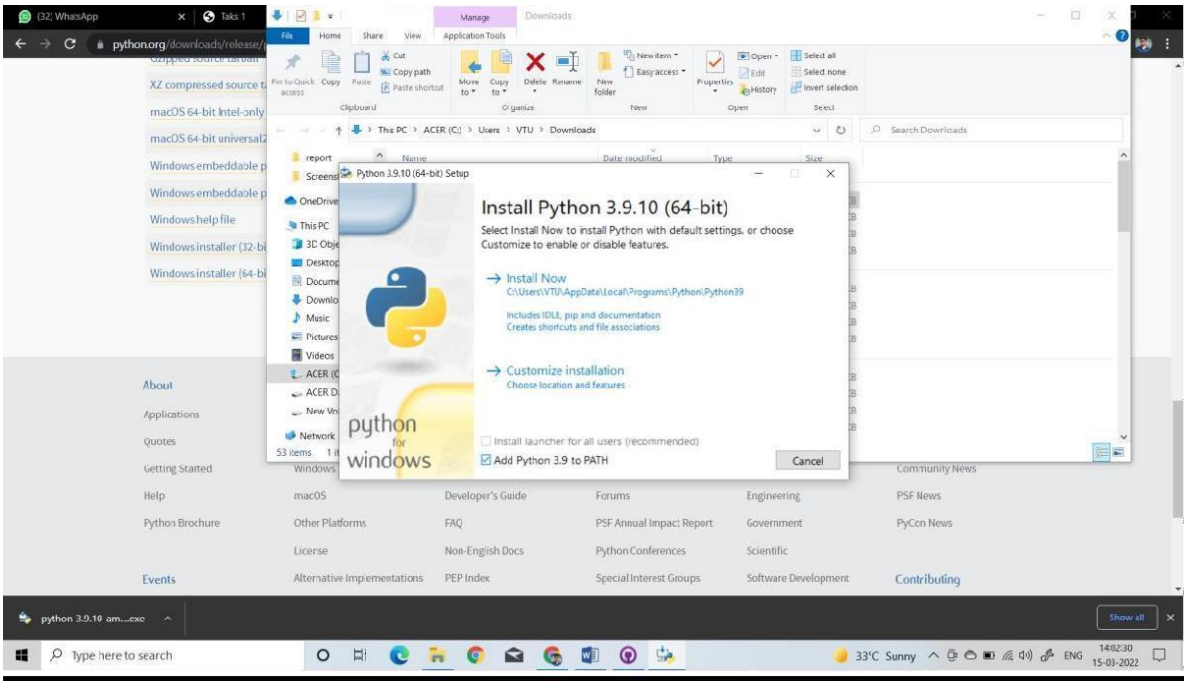


Fig:3.6.1 Github

Creating Virtual Environment

- Install the Python Version of 3.9.10
- Enabled add to path



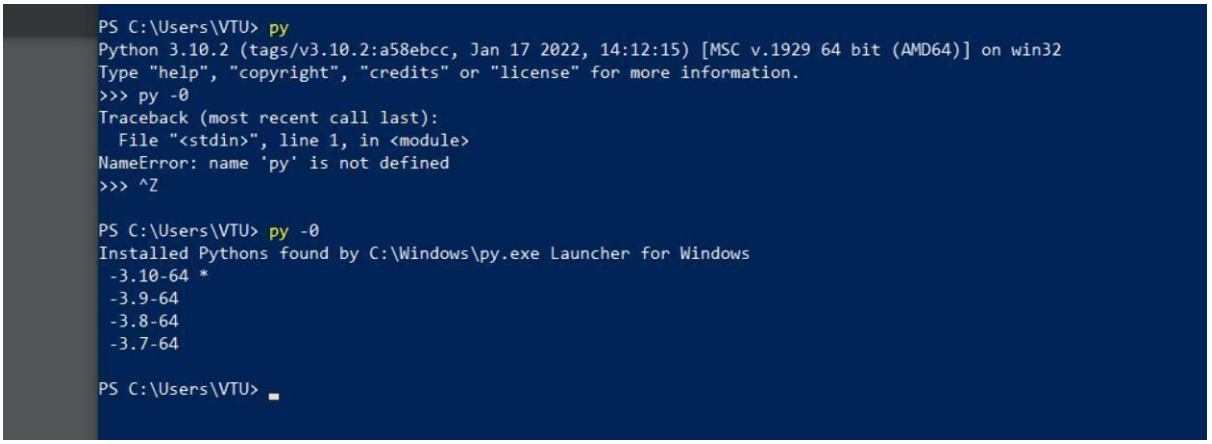
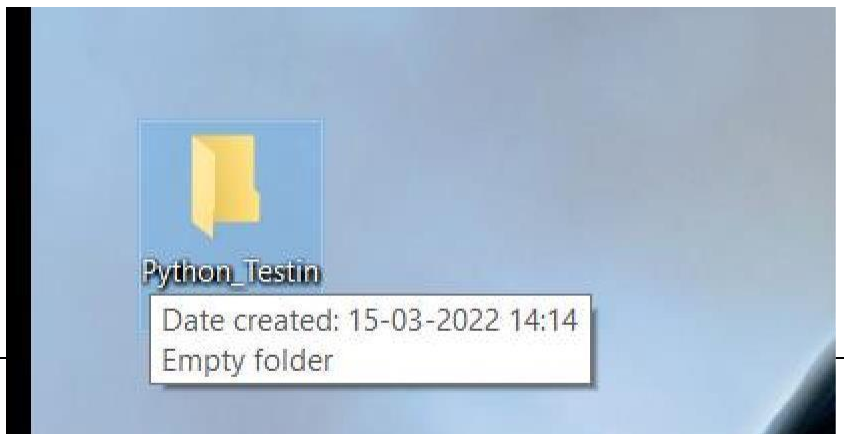


Fig 3.6.3:Setting the Python Version



(venv38)

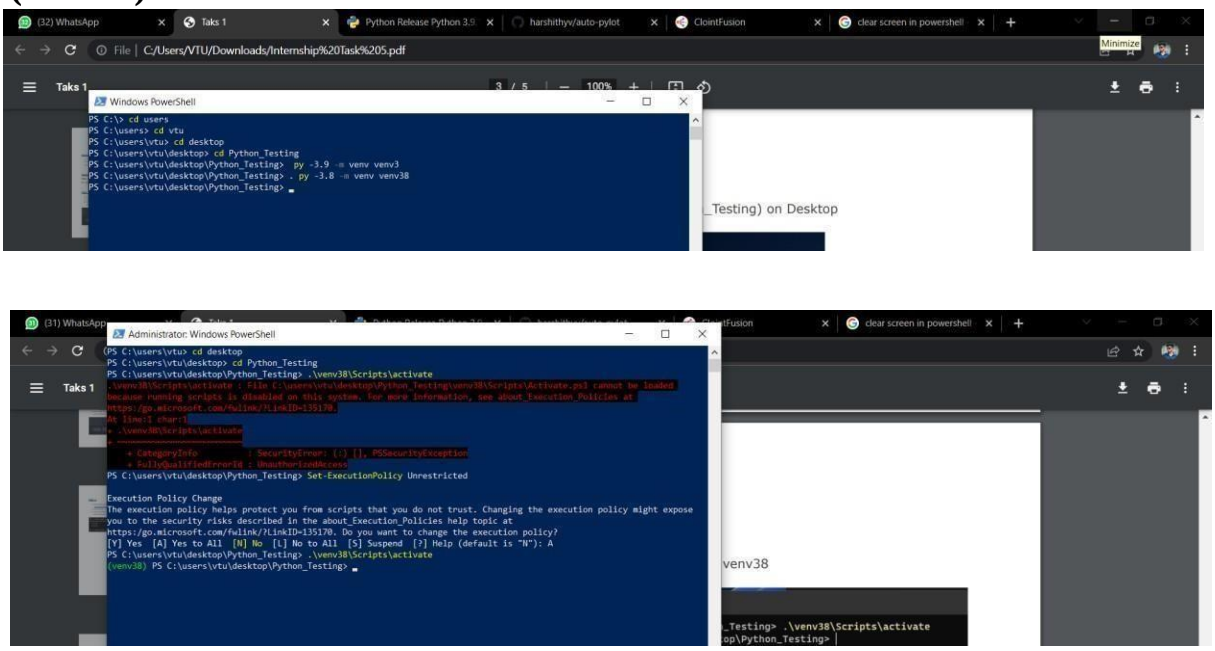


Fig 3.6.4 : Created a new python virtual environment(venv38)

Fig 3.6.5: Created a new python virtual environment(venv38)

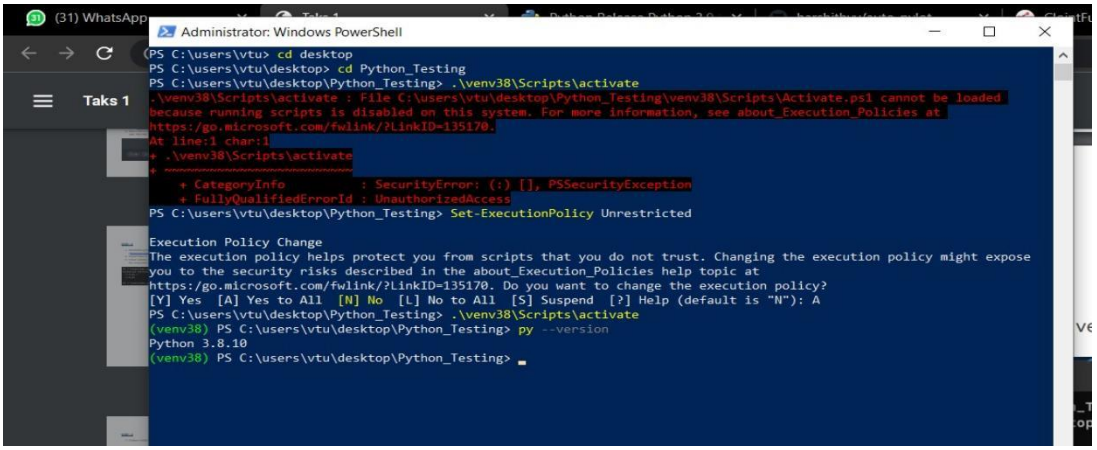
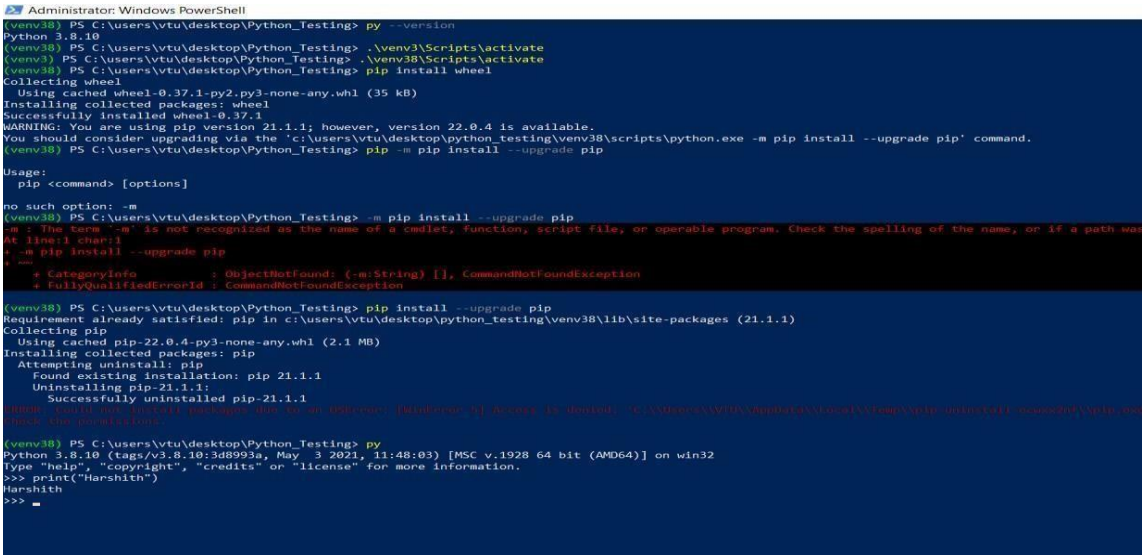


Fig 3.6.6 Printing through python version 3.8



(venv39)

Fig 3.6.7:Activating another Virtual environment no:3

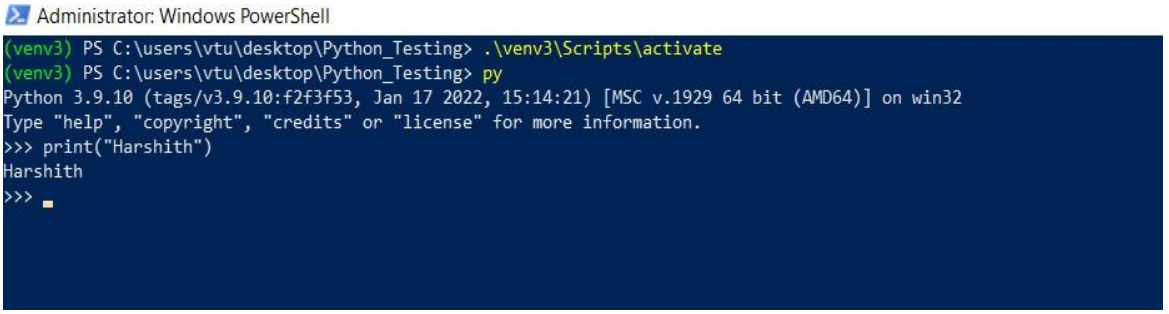


Fig 3.6.8 Printing through python version 3.9.10

- Installed Python version 3.8 and 3.9.10
- Created virtual environment
- Activated virtual Environment 38
- Printing through the virtual environment 38
- Activated virtual Environment 3
- Printing through the virtual environment 3

CHAPTER 4

REFLECTION NOTES

I gained a new sense of professionalism and a clearer view of what it meant to be in the professional world.

I would advise everyone to take the opportunity and do an internship. Skills Gained

Benefits of doing Internship:

- Gained a clear view of Bots
- Gained a clear view of RPA
- Studied how to create Bots using Python
- Studied about ClointFusion and I will also refer my friends to work andcreate bots.
- Got Knowledge about My Auto-pylot Module.
- I learn to install the ‘my-autopylot’ module in both virtual environments.
- I learn some functions of the ‘my-autopylot’ module. ➢ I learn to create BOTs using ‘my-autopylot’ module functions.

It was a great time to work as an intern at Clointfusion, Completed the task given by the mentor, tasks were amazing to do and it was exciting to build some creative bots using drag and drop using Clointfusion software and using Auto-pylot functions

REFERENCES:-

- https://*www.pybots.ai.com/*
- https://*www.github/.pybot/.ai.com*
- https://*www.clointfusion/ai.com*