

DEPLOYMENT MANUAL

Project Name: SARS Covid-19 Detection Through AI

Team: Mission Possible

Project Description:

This is a web application that allows users to upload CT scan reports and receive accurate results indicating if they have COVID-19. It employs AI and deep learning techniques to analyze the scan images and return a prediction.

Key Features:

- User registration and login
- Upload CT scan images
- AI-powered analysis for COVID-19 prediction
- Present results to user
- Track scan history over time
- Doctor appointment scheduling
- Real time analysis of the present covid-data

The application aims to provide an easy way for users to check if they potentially have COVID-19, right from the comfort of their homes. By using past scan history it can also show trends over time. Appointment scheduling and ability to order kits makes it a comprehensive solution.

Technologies:

Convolutional Neural Networks

TensorFlow, Keras

Flask, Python

System Requirements:

Operating System: Windows, Linux, MacOS

RAM: 8GB minimum

CPU: Quad-core processor

Storage: 250GB HDD

Software:

Python 3.6+, TensorFlow, Keras, Flask, MySQL

Install Required Software

Install Python 3.6+

Install TensorFlow, Keras, Flask, and other Python packages

Install MySQL database

Set up Database:

Create database schema

Create user login credentials

Import sample data if available

Configure Application:

Set application properties like database URL, credentials

Make any needed changes to file paths or settings

Deploy Application Server:

Run Flask application on production server

Configure WSGI server like Gunicorn or Waitress

Enable HTTPS

Testing:

Run integration tests and validate functionality

Verify prediction results with sample images

Stress test application load capabilities

Clone the repository:

“Git clone- <https://github.com/htmw/2023S-Team4.git>”

Source code :

<https://github.com/htmw/2023S-Team4.git>

hanith2646 / covidP2 (Public)

Code Issues Pull requests Actions Projects Security Insights

master 2 branches 0 tags

Go to file Code About

No description, website, or topics provided.

Clone Local Codespaces

HTTPS GitHub CLI

<https://github.com/hanith2646/covidP2.git>

Use Git or checkout with SVN using the web URL.

Open with GitHub Desktop

Download ZIP

Local Codespaces

Readme Activity 0 stars 1 watching 0 forks Report repository

Releases No releases published

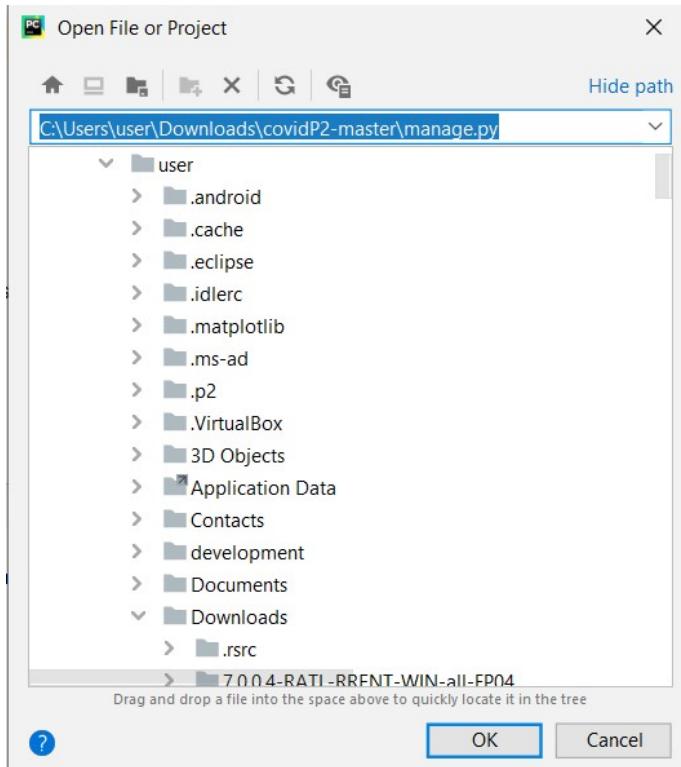
Packages No packages published Activate Windows Go to Settings to activate Windows.

Branches: master, 2 weeks ago

Commits: accounts, new; chatbot, Initial commit; covid19predictor, Initial commit; media/images, Initial commit; node_modules, Initial commit; predictor, Initial commit; static, Initial commit; templates, css2, last week; .DS_Store, cases, 2 weeks ago; .gitignore, Initial commit, 2 weeks ago; README.md, Initial commit, 2 weeks ago

Download the zip folder and extract all the files

After extracting files. Open pycharm and open the extracted files.

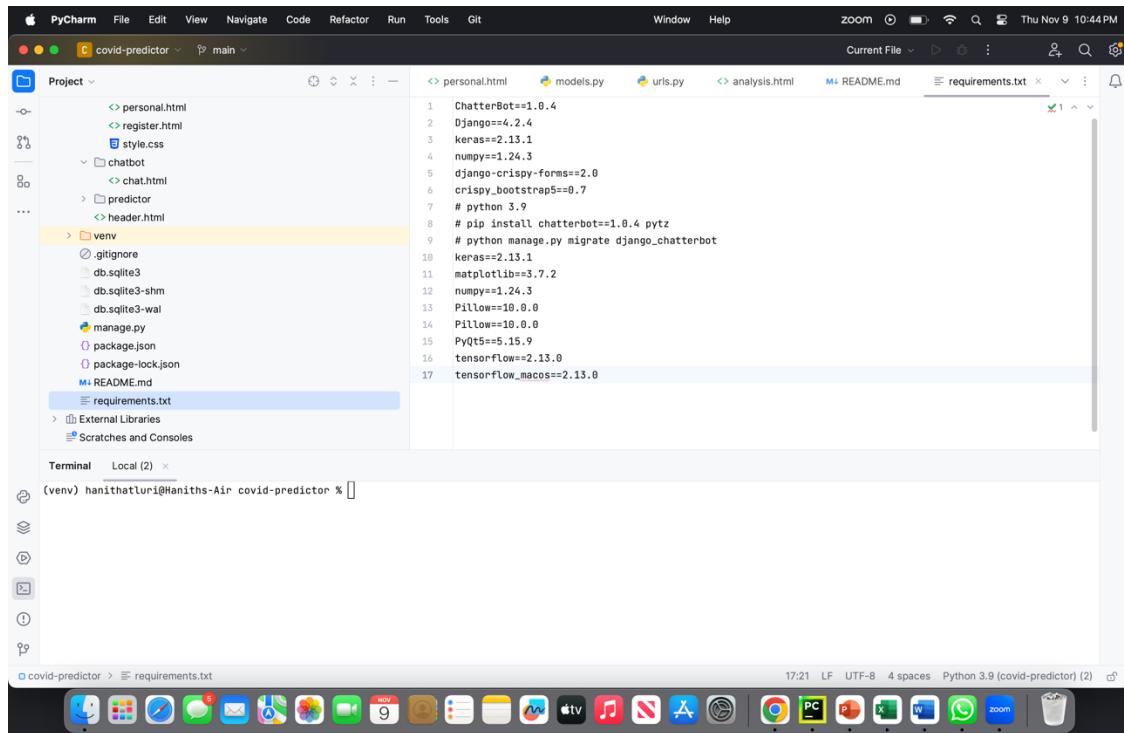


Step 2: Install Dependencies

```bash

pip install -r requirements.txt

```



The screenshot shows the PyCharm IDE interface. The top menu bar includes File, Edit, View, Navigate, Code, Refactor, Run, Tools, Git, Window, Help, and zoom. The status bar at the bottom right shows the date as Thu Nov 9 10:44 PM. The main window has tabs for personal.html, models.py, urls.py, analysis.html, README.md, and requirements.txt. The requirements.txt tab is currently active, displaying the following dependency list:

```
1 ChatterBot==1.0.4
2 Django==4.2.4
3 keras==2.13.1
4 numpy==1.24.3
5 django-crispy-forms==2.0
6 crispy_forms==0.7
7 # python 3.9
8 # pip install chatterbot==1.0.4 pytz
9 # python manage.py migrate django_chatterbot
10 keras==2.13.1
11 matplotlib==3.7.2
12 numpy==1.24.3
13 Pillow==10.0.0
14 PyQt5==5.15.9
15 tensorflow==2.13.0
16 tensorflow_macos==2.13.0
17
```

The left sidebar shows the project structure with files like personal.html, register.html, style.css, chatbot, chat.html, predictor, header.html, venv, gitignore, db.sqlite3, db.sqlite3-shm, db.sqlite3-wal, manage.py, package.json, package-lock.json, README.md, and requirements.txt. The requirements.txt file is selected. The bottom terminal window shows the command (venv) hanithaturl@Maniths-Air covid-predictor % []

Open terminal and then install all dependencies

The screenshot shows the PyCharm IDE interface. The top menu bar includes File, Edit, View, Navigate, Code, Refactor, Run, Tools, Git, Window, Help, and zoom. The current file is 'requirements.txt'. The left sidebar shows the project structure with files like personal.html, register.html, style.css, chatbot (containing chat.html), predictor, header.html, .gitignore, db.sqlite3, db.sqlite3-shm, db.sqlite3-wal, manage.py, package.json, package-lock.json, and README.md. The right pane displays the contents of requirements.txt:

```

1 ChatterBot==1.0.4
2 Django==4.2.4
3 keras==2.13.1
4 numpy==1.24.3
5 django-crispy-forms==2.0
6 crispy_bootstrap5==0.7
7 # python 3.9
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11 matplotlib==3.7.2
12 numpy==1.24.3
13 Pillow==10.0.0
14 Pillow==10.0.0
15 PyQt5==5.15.9
16 tensorflow==2.13.0
17 tensorflow_macos==2.13.0

```

The terminal at the bottom shows the command being run: `(venv) hanithatluri@Maniths-Air covid-predictor % pip install -r requirements.txt`. The output indicates that most dependencies are already satisfied.

To runserver

Use this command line to run server- **python manage.py runserver**

The screenshot shows the PyCharm IDE interface with the same project structure as the previous screenshot. The terminal at the bottom shows the command `(venv) hanithatluri@Maniths-Air covid-predictor % python manage.py runserver` being run. The output shows the application is performing system checks and then starts the server. It also handles a warning about SSL support and a warning from the nltk module.

```

Watching for file changes with StatReloader
Performing system checks...
/home/hanithatluri/PycharmProjects/2023S-Team4/covid-predictor/venv/lib/python3.9/site-packages/urllib3/_init_.py:34: NotOpenSSLWarning: urllib3 v2.0 only supports Open
SSL 1.1.1+, currently the 'ssl' module is compiled with 'LibreSSL 2.8.3'. See: https://github.com/urllib3/urllib3/issues/3020
  warnings.warn(
[nltk_data] Downloading package averaged_perceptron_tagger to
[nltk_data]   /Users/hanithatluri/nltk_data...
[nltk_data]   Package averaged_perceptron_tagger is already up-to-

```

Then application will be started in unique sever-id click on it to redirect from the default browser

```

1 ChatterBot==1.0.4
2 Django==4.2.4
3 keras==2.13.1
4 numpy==1.24.3
5 django-crispy-forms==2.0
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13 Pillow==10.0.0
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15 PyQt5==5.15.9
16 tensorflow==2.13.0
17 tensorflow_macos==2.13.0

```

TERMINAL Local (2) +

WARNINGS:

?:: (urls.W005) URL namespace 'accounts' isn't unique. You may not be able to reverse all URLs in this namespace

System check identified 1 issue (0 silenced).

November 10, 2023 - 03:48:29

Django version 4.2.4, using settings 'covid19predictor.settings'

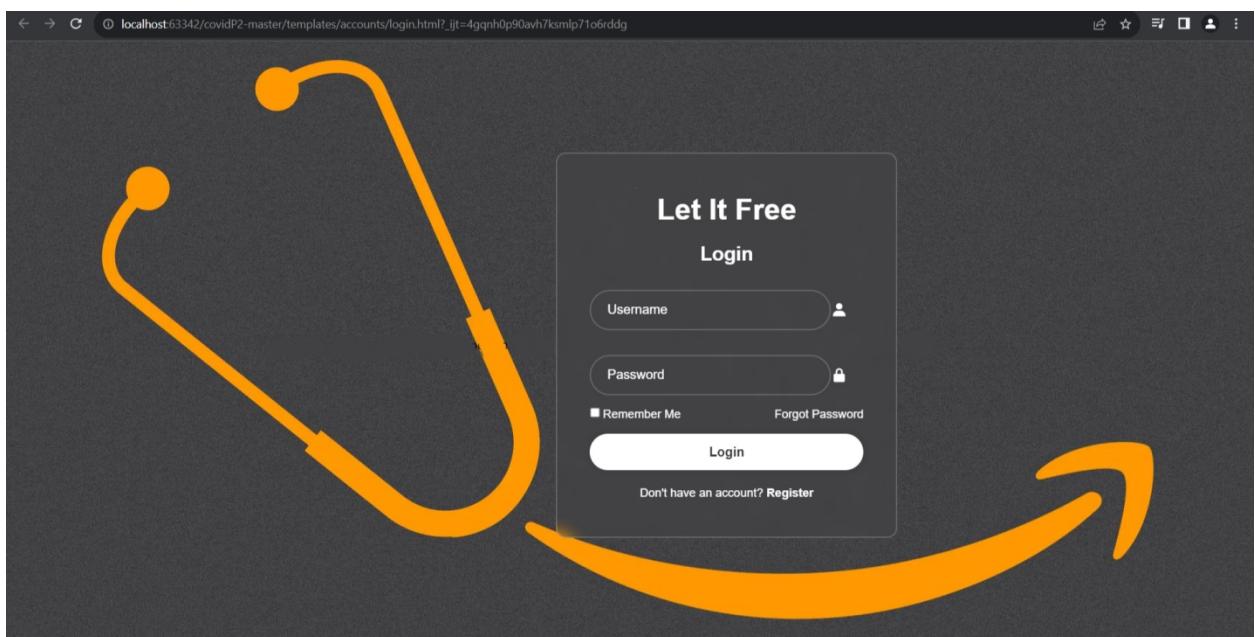
Starting development server at <http://127.0.0.1:8000/>

Quit the server with CONTROL-C.

covid-predictor > requirements.txt

Finally application will be running on default browser

LOGIN PAGE-



HOME PAGE-

The screenshot shows a web browser window with a tab bar at the top containing various links like 'Classes - p', 'aturi hanith', 'Generate P...', 'You are giv...', 'How To Ma...', 'Login-Form', 'htm/202...', 'Home - htm', 'Classes - p', 'Home', and 'Relaunch to update'. Below the tab bar, the URL '127.0.0.1:8000' is visible. The main content area has a header 'LET IT FREE' with a logo. It displays a form titled 'Upload Xray to Predict' with fields for 'Name*' (input field), 'Image*' (input field showing 'Choose File No file chosen'), and a blue 'Upload' button. To the right of the form is a large, stylized illustration of two legs standing on a yellow surface, wearing red pants and blue sneakers. On the far right, there is a 'Support Bot' section with a text input field and 'Send' and 'Clear' buttons.

HISTORY PAGE-

The screenshot shows a web browser window with a tab bar at the top containing various links like 'Classes - p', 'aturi hanith', 'Generate P...', 'You are giv...', 'How To Ma...', 'Login-Form', 'htm/202...', 'Home - htm', 'Classes - p', 'Home', and 'Relaunch to update'. Below the tab bar, the URL '127.0.0.1:8000/predictor/history/' is visible. The main content area has a header 'LET IT FREE' with a logo. It displays a table titled 'Xray History' with columns '#', 'Name', 'Created on', 'Image URL', and 'Result'. The table contains 14 rows of data, all showing 'POSITIVE' as the result. The last row is for a user named 'near' created on Nov 26, 2023, 7:21 a.m. The 'Image URL' column for this row is 'images/RScreenshot_2023-11-26_at_7-21-00AM_2081109.png'. To the right of the table is a 'Support Bot' section with a text input field and 'Send' and 'Clear' buttons.

#	Name	Created on	Image URL	Result
1	user	Nov. 26, 2023, 7:13 a.m.	images/cnm.png	POSITIVE
2	user	Nov. 26, 2023, 7:14 a.m.	images/cnm_m4auZfC.png	POSITIVE
3	user	Nov. 26, 2023, 7:16 a.m.	images/cnm_7Dg97long	POSITIVE
4	user	Nov. 26, 2023, 7:16 a.m.	images/Screenshot_2023-11-26_at_7-12-00AM.png	POSITIVE
5	user	Nov. 26, 2023, 7:16 a.m.	images/Screenshot_2023-11-26_at_7-12-00AM_mUK9lzz.png	POSITIVE
6	user	Nov. 26, 2023, 7:17 a.m.	images/Screenshot_2023-11-26_at_7-12-00AM_updPauxx.png	POSITIVE
7	user	Nov. 26, 2023, 7:17 a.m.	images/Screenshot_2023-11-26_at_7-12-00AM_BmfpAg3.png	POSITIVE
8	user	Nov. 26, 2023, 7:18 a.m.	images/Screenshot_2023-11-26_at_7-12-00AM_7vBOM4.png	POSITIVE
9	user	Nov. 26, 2023, 7:20 a.m.	images/Screenshot_2023-11-26_at_7-12-00AM_myD1KX.png	POSITIVE
10	user	Nov. 26, 2023, 7:20 a.m.	images/Screenshot_2023-11-26_at_7-12-00AM_wtrFr18.png	POSITIVE
11	user	Nov. 26, 2023, 7:20 a.m.	images/Screenshot_2023-11-26_at_7-12-00AM_ml9610F.png	POSITIVE
12	user	Nov. 26, 2023, 7:20 a.m.	images/Screenshot_2023-11-26_at_7-12-00AM_e9kKcC.png	POSITIVE
13	user	Nov. 26, 2023, 7:21 a.m.	images/Screenshot_2023-11-26_at_7-12-00AM_JwlCcO.png	POSITIVE
14	near	Nov. 26, 2023, 7:21 a.m.	images/RScreenshot_2023-11-26_at_7-12-00AM_2081109.png	POSITIVE

PERSONAL DETAILS FORM-

Personal Details and COVID-19 Form

Personal Information

First Name: [Input Field]
Last Name: [Input Field]
Date of Birth: [Input Field] mm/dd/yyyy
Phone Number: [Input Field]
Email: [Input Field]

COVID-19 Questions

Have you traveled recently?
Do you have COVID-19 symptoms?
Have you been in close contact with a COVID-19 positive person?
Are you vaccinated for COVID-19?

Additional Information

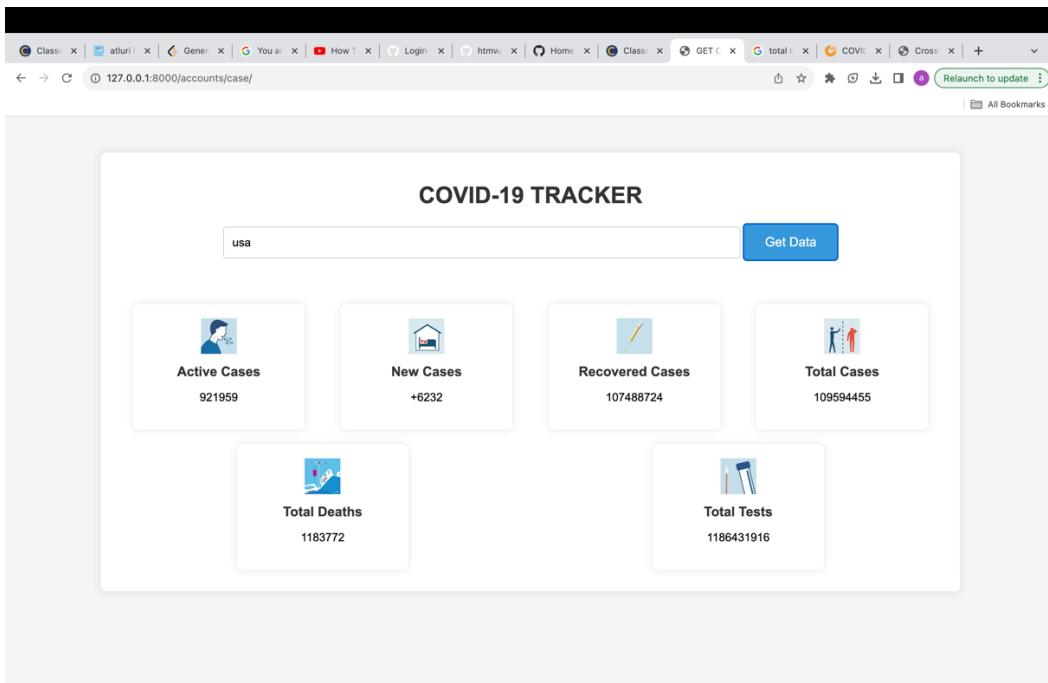
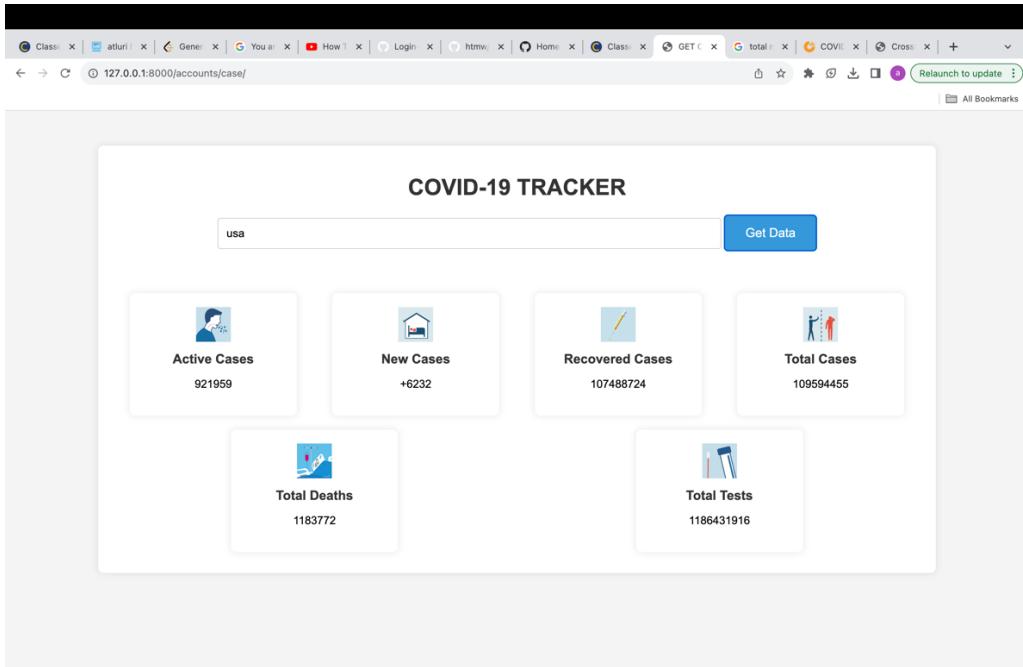
If you've traveled, please provide details: [Input Field]

DOCTOR APPOINTMENT TAB-

Welcome to Our LET IT FREE Doctor's Appointment Service

 Dr. Smith Specialty: Cardiologist Book an Appointment	 Dr. Johnson Specialty: Pediatrician Book an Appointment	 Dr. Brown Specialty: Dermatologist Book an Appointment	 Dr. Miller Specialty: Pulmonologist Book an Appointment
 Dr. White	 Dr. Patel	 Dr. Kim	 Dr. Garcia

COVID-19 TRACKER



Covid 19 tracker for the active case ,new cases ,recovered cases ,total cases

SELF CHECK- ASSESSMENT

COVID-19 Self-Assessment

- Do you have any symptoms of COVID-19? (Fever, Cough, Shortness of breath, etc.)
- Have you been in close contact with someone diagnosed with COVID-19 in the last 14 days?
- Have you experienced a sudden loss of taste or smell?
- Are you having chills or experiencing shivering?
- Do you have nasal congestion or a runny nose?
- Are you experiencing redness or irritation in the eyes (conjunctivitis)?
- Have you noticed any unusual skin rash or discoloration?
- Are you experiencing muscle or body aches?
- Have you had any gastrointestinal symptoms, such as nausea, vomiting, or diarrhea?
- Are you feeling unusually tired or fatigued?
- Have you been experiencing persistent headaches?
- Are you having difficulty sleeping or insomnia?

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Necessary precautions to be taken

Please stay away from everyone and make yourself isolated. Seek medical advice if necessary.