CORONA VIRUS PROBABILITY DETECTOR

Healthy,

safe and

productive lives

Hello, everyone, my name is Nitin Kumar and I'm 2nd-year B.tech student from computer science branch.
So finally I made a web-application (Corona Virus Probability Detector), And I have used Machine Learning(ML) Technology for this Project.

I have used some Data, and Data is taking from Infected or non-infected people with the Coronavirus, I have trained the Data through the Machine Learning because In Machine Learning Data has to be Trained.

And I have used fake Data because I don't have real Data, And the actual Data will be provided by the Government.
So I accepted Covid-19 solution challenge, and I create a web-application.

So Through this web application, you can estimate the likehood of getting Infected with the Corona Virus.
If you are 20-40 Percent likely to be Infected with the Corona Virus, So actually you are not infected with the virus, And on the other side, If you are 50-80 per cent likely to be Infected with the Corona Virus, So actually you are Infected with the Virus.

You can check the Probability with help of this Tool, and can go to the Hospital for its verification, and clear your doubts.

And I have trained the Data through the Machine Learning, So through this Tool, You can estimate the Probability of Infected virus.
So I fill the data.....
And as You can see the probability of Infected with the coronavirus..%.

I used these technology stack for this project..

1. **ML(Machine Learning)**
2. **Flask**
3. **Bootstrap**

For the Frontend(Bootstrap, Flask)
And for the Backend(ML).

For the prediction of the Probability of Coronavirus, I have used some Virus Symptoms Factors like Cough, Fever, Breathing and Age etc.
So You can Add all Requirement Data in Web-Application.... and finally as You can see your probability of Infection Virus.

If You doubt yourself whether you are Infected with the Virus or not? Then You can visit my website and fill all symptoms and then clear your doubt.

So through this web application, you can overcome the work of Doctors and Government employees.
And finally You will be satisfied with your doubt.

How to use this Web-Application:

If You doubt yourself whether you are Infected with the Virus or not? So You write all requirements Data (Symptoms) like Fever, Age, and Headache etc in this website.

And then in the next step, you see the Possibility of Infected virus in this website, If your Probability is showing low percentage, You are then satisfied with your doubt that you are not Infected with the Virus.

And in opposition, If Your Probability is showing high percentage, So you are Infected with the virus.
And finally, you completely satisfied with your doubt that you are infected with the virus or not?
And with this web application, you are also helping the Doctors and Government.

Work of Web-Application:

This Web-application completely based on Machine-Learning, and this is the backend part of it, And on the other side, I have done it with Bootstrap and Flask for the Frontend part.

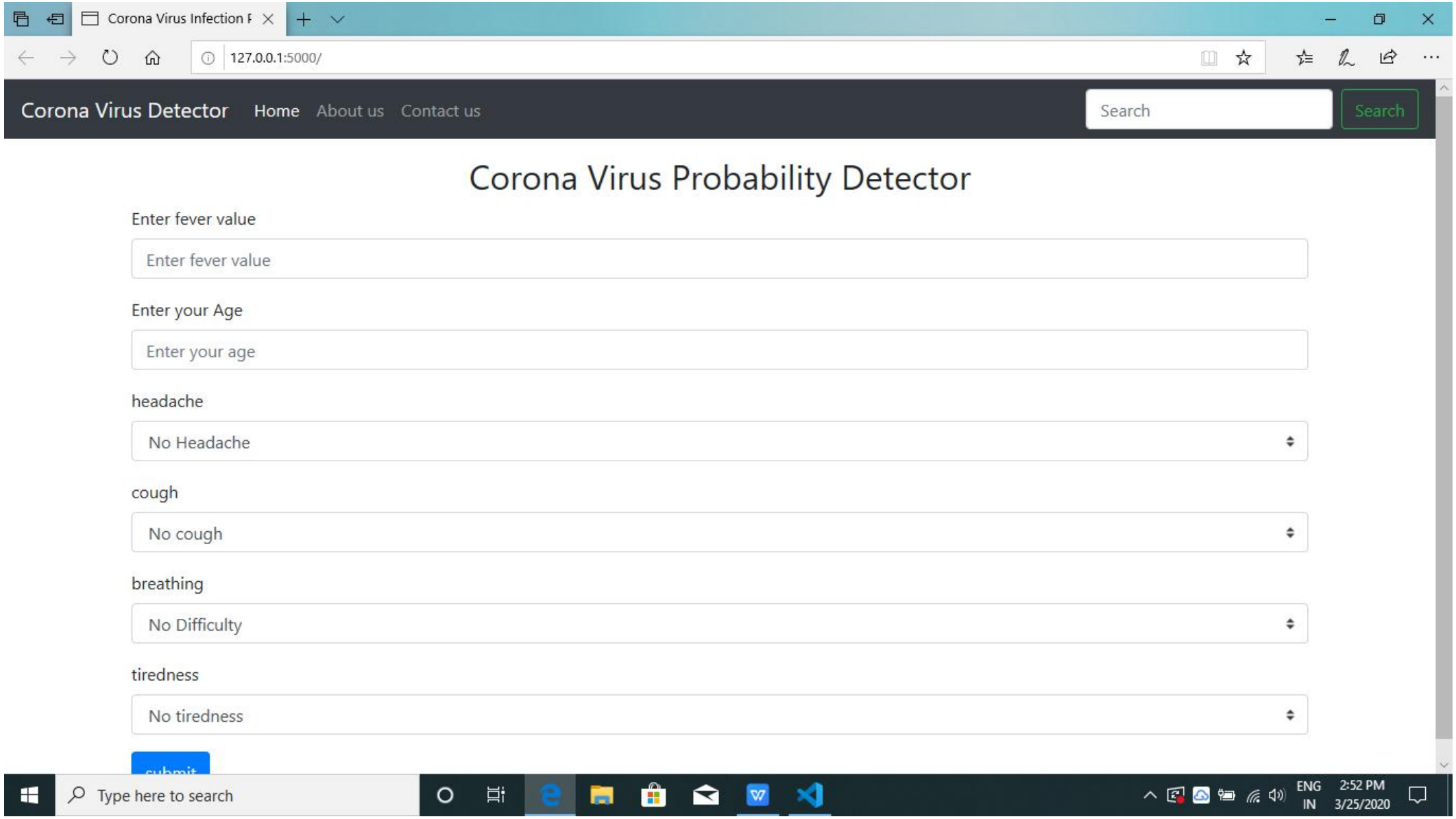
So I have trained the Data through Machine Learning, and then Machine Learning predicts the Probability of Infected virus.

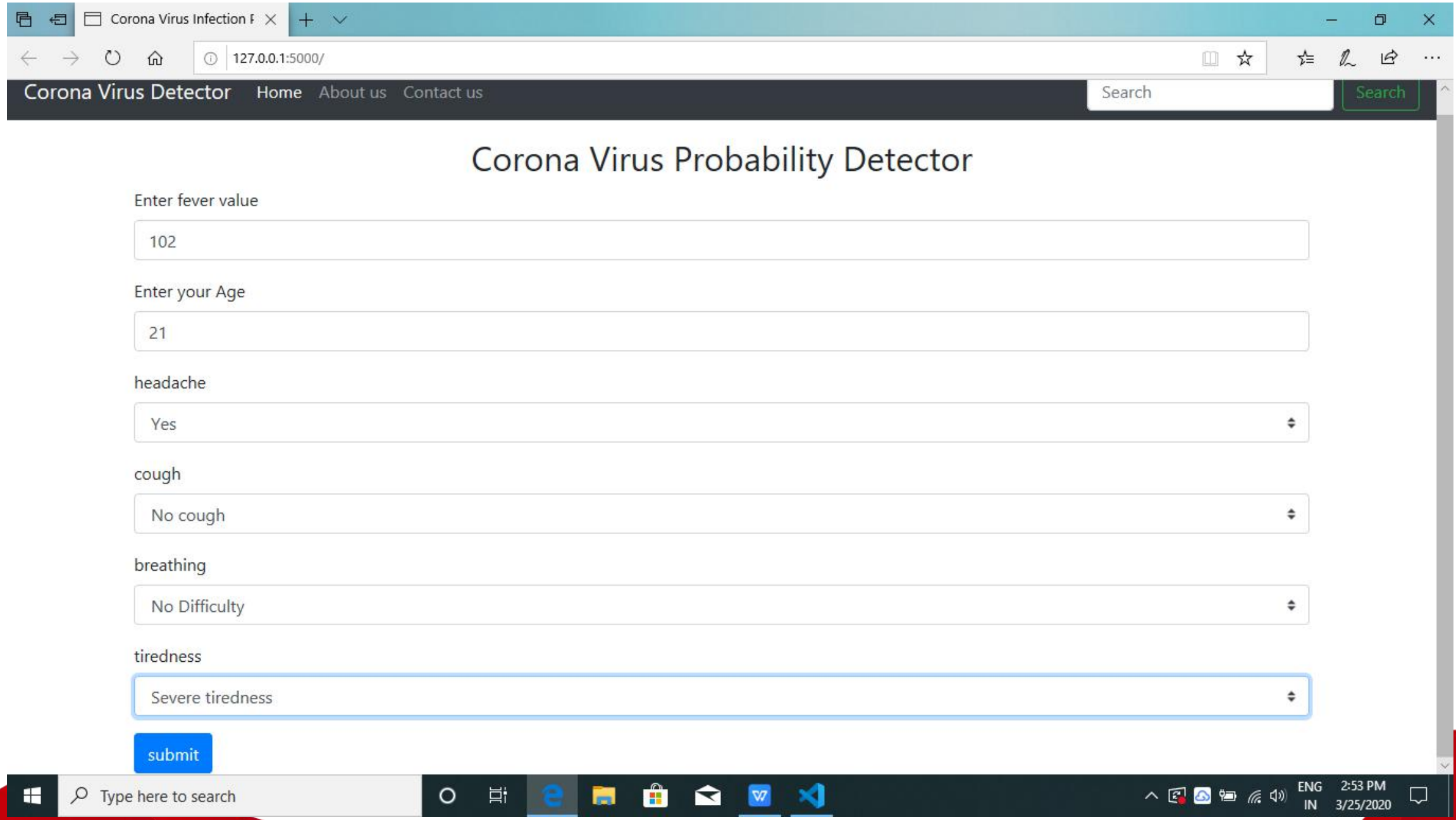
Through this Machine-Learning, you predict approximately 98 % accuracy with the fake data, because I don't have real data.

The idea of Approach:

Actually, with the help of this Web-Application, you can help the Government and Doctors, because through this Web-Application the work of Doctor's and Government can be reduced.
And after checking the probability of infected virus, So you can verify through the doctors.

So through this web application, you can clear your doubts, So anybody has doubt yourself whether you are Infected with the Virus or not?
So before the hospital checkup, you can clear your doubts through this Web-Application.


Corona Virus Infection F
127.0.0.1:5000/
Corona Virus Detector
Home
About us
Contact us
Search
Search
Corona Virus Probability Detector
Enter fever value
Enter fever value
Enter your Age
Enter your age
headache
No Headache
cough
No cough
breathing
No Difficulty
tiredness
No tiredness
submit
Type here to search
ENG
IN
2:52 PM
3/25/2020


Corona Virus Infection F
127.0.0.1:5000/
Corona Virus Detector
Home
About us
Contact us
Search
Search
Corona Virus Probability Detector
Enter fever value
102
Enter your Age
21
headache
Yes
cough
No cough
breathing
No Difficulty
tiredness
Severe tiredness
submit
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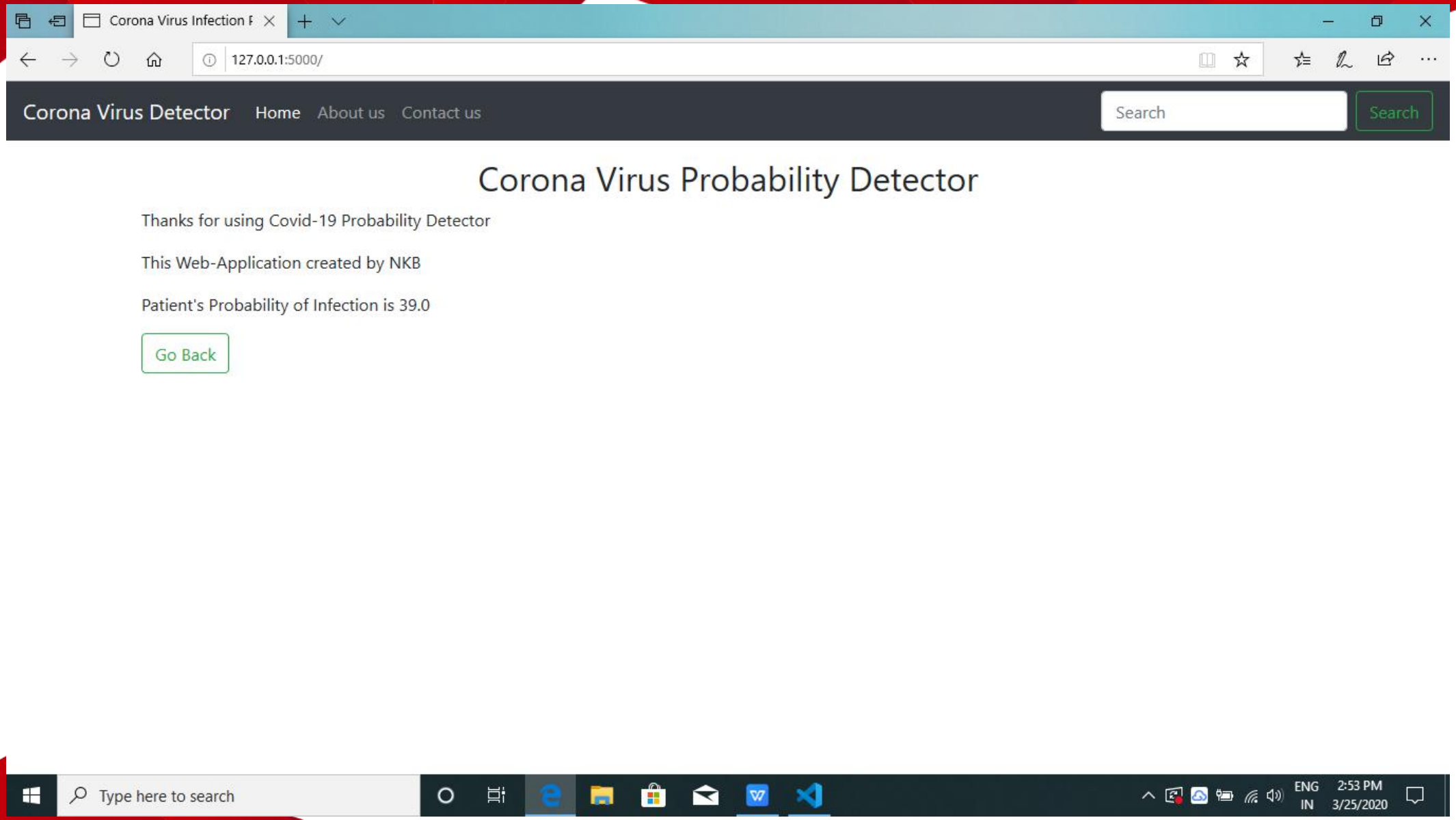
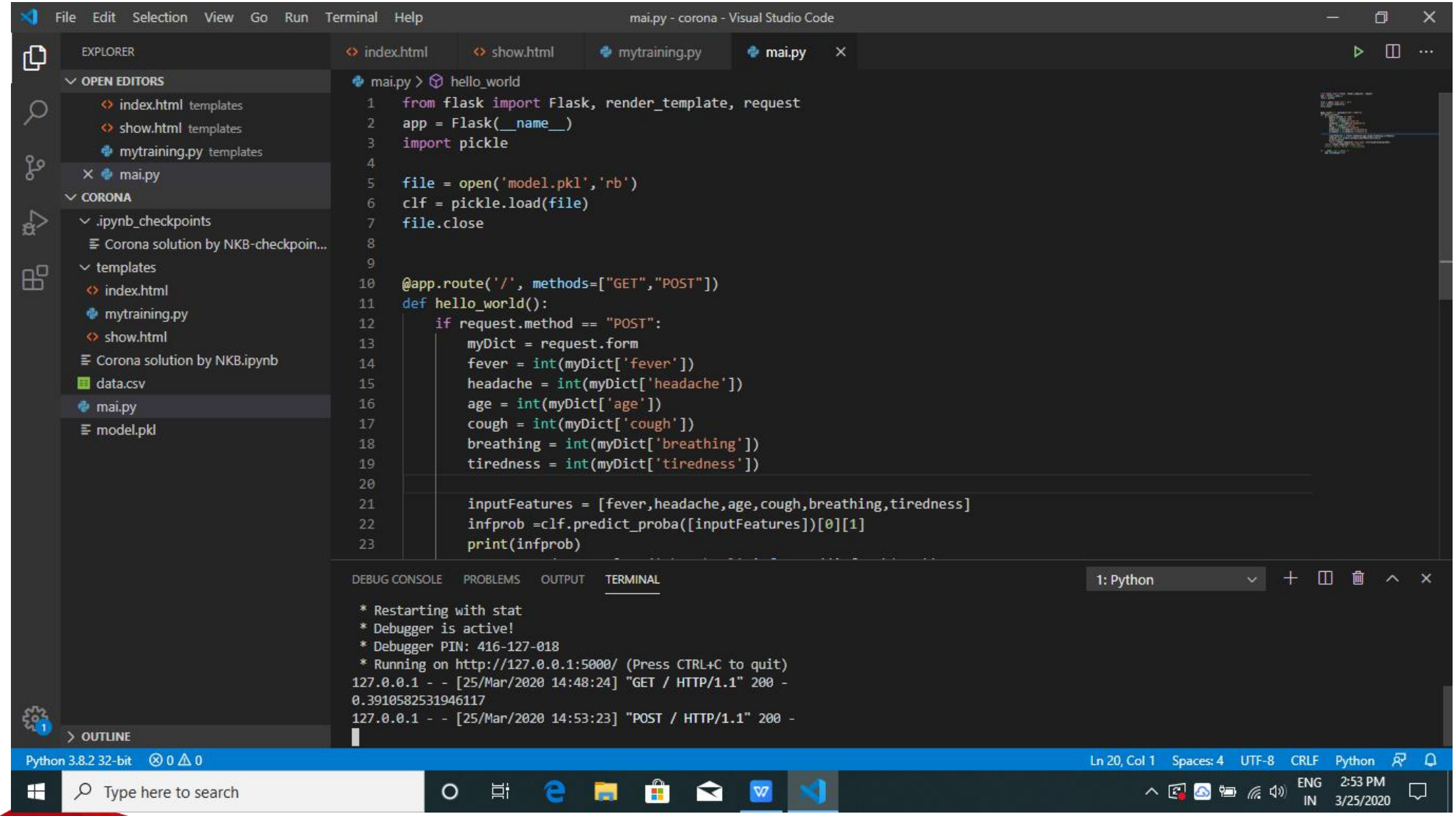

Corona Virus Infection F
127.0.0.1:5000/
Corona Virus Detector
Home
About us
Contact us
Search
Search
Corona Virus Probability Detector
Thanks for using Covid-19 Probability Detector
This Web-Application created by NKB
Patient's Probability of Infection is 39.0
Go Back
Type here to search
ENG
IN
2:53 PM
3/25/2020


File Edit Selection View Go Run Terminal Help
mai.py - corona - Visual Studio Code
EXPLORER
OPEN EDITORS
index.html templates
show.html templates
mytraining.py templates
mai.py
CORONA
.ipynb_checkpoints
Corona solution by NKB-checkpoin...
templates
index.html
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data.csv
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model.pkl
OUTLINE
index.html
show.html
mytraining.py
mai.py
mai.py > hello_world
1 from flask import Flask, render_template, request
2 app = Flask(__name__)
3 import pickle
4
5 file = open('model.pkl','rb')
6 clf = pickle.load(file)
7 file.close
8
9
10 @app.route('/', methods=["GET","POST"])
11 def hello_world():
12 if request.method == "POST":
13 myDict = request.form
14 fever = int(myDict['fever'])
15 headache = int(myDict['headache'])
16 age = int(myDict['age'])
17 cough = int(myDict['cough'])
18 breathing = int(myDict['breathing'])
19 tiredness = int(myDict['tiredness'])
20
21 inputFeatures = [fever,headache,age,cough,breathing,tiredness]
22 infprob =clf.predict_proba([inputFeatures])[0][1]
23 print(infprob)
DEBUG CONSOLE PROBLEMS OUTPUT TERMINAL
1: Python
* Restarting with stat
* Debugger is active!
* Debugger PIN: 416-127-018
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
127.0.0.1 - - [25/Mar/2020 14:48:24] "GET / HTTP/1.1" 200 -
0.3910582531946117
127.0.0.1 - - [25/Mar/2020 14:53:23] "POST / HTTP/1.1" 200 -
Python 3.8.2 32-bit
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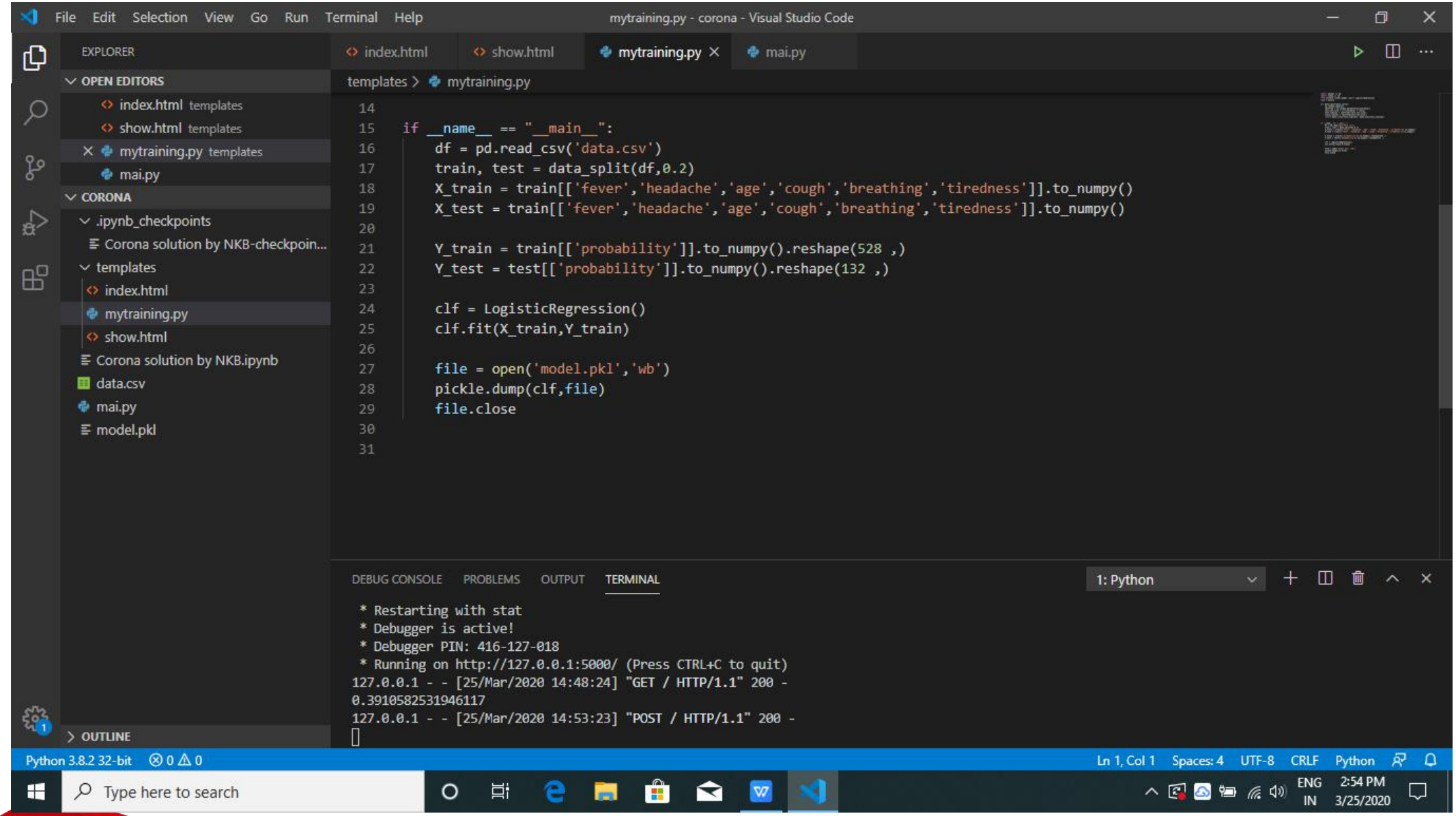
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mytraining.py - corona - Visual Studio Code
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OUTLINE
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templates > mytraining.py
14
15 if __name__ == "__main__":
16 df = pd.read_csv('data.csv')
17 train, test = data_split(df,0.2)
18 X_train = train[['fever','headache','age','cough','breathing','tiredness']].to_numpy()
19 X_test = train[['fever','headache','age','cough','breathing','tiredness']].to_numpy()
20
21 Y_train = train[['probability']].to_numpy().reshape(528 ,)
22 Y_test = test[['probability']].to_numpy().reshape(132 ,)
23
24 clf = LogisticRegression()
25 clf.fit(X_train,Y_train)
26
27 file = open('model.pkl','wb')
28 pickle.dump(clf,file)
29 file.close
30
31
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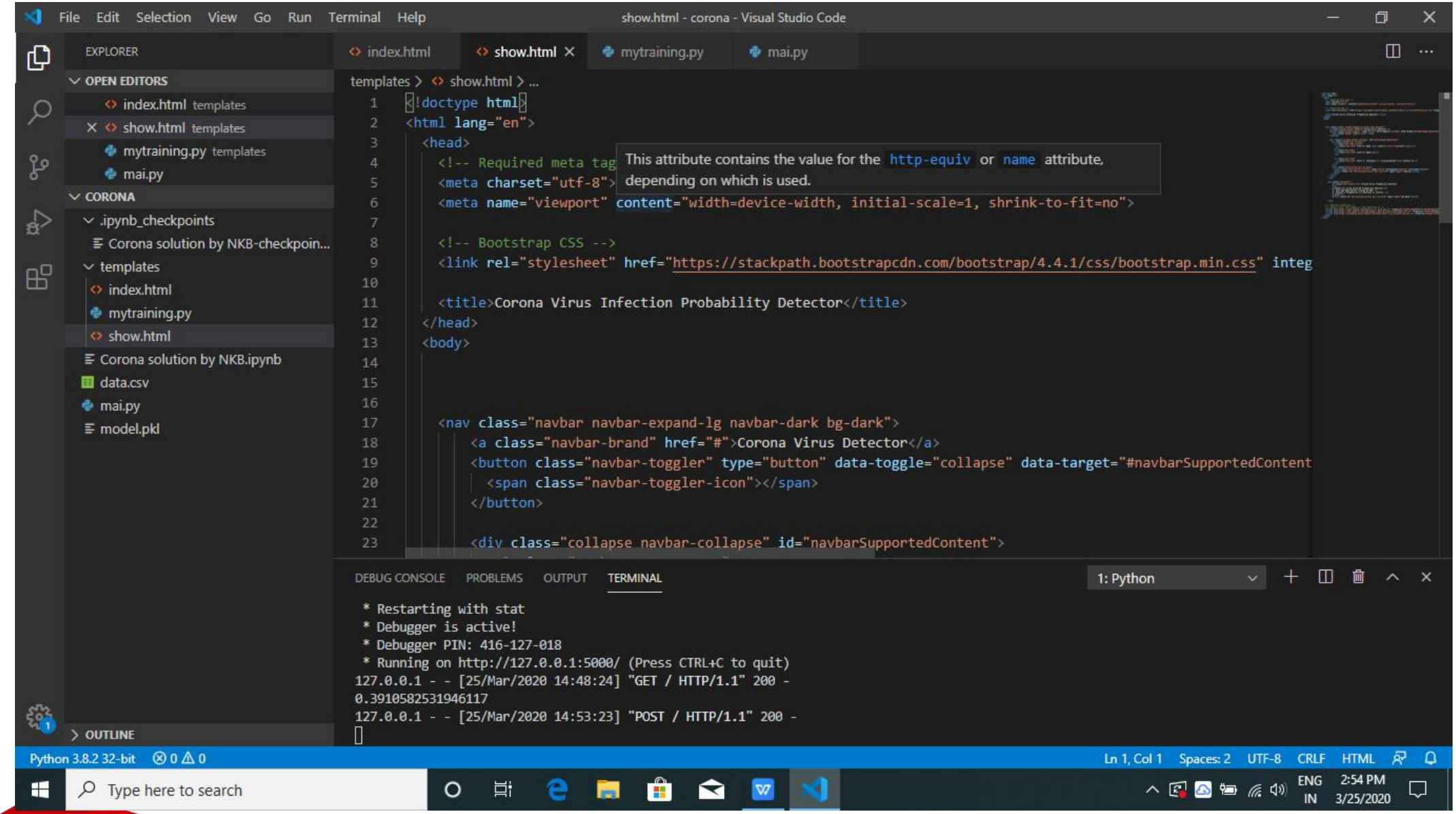
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show.html - corona - Visual Studio Code
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mai.py
templates > show.html > ...
<!doctype html>
<html lang="en">
<head>
<!-- Required meta tag
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
This attribute contains the value for the http-equiv or name attribute, depending on which is used.
<!-- Bootstrap CSS -->
<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.4.1/css/bootstrap.min.css" integ
<title>Corona Virus Infection Probability Detector</title>
</head>
<body>
<nav class="navbar navbar-expand-lg navbar-dark bg-dark">
Corona Virus Detector
<button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarSupportedContent

</button>

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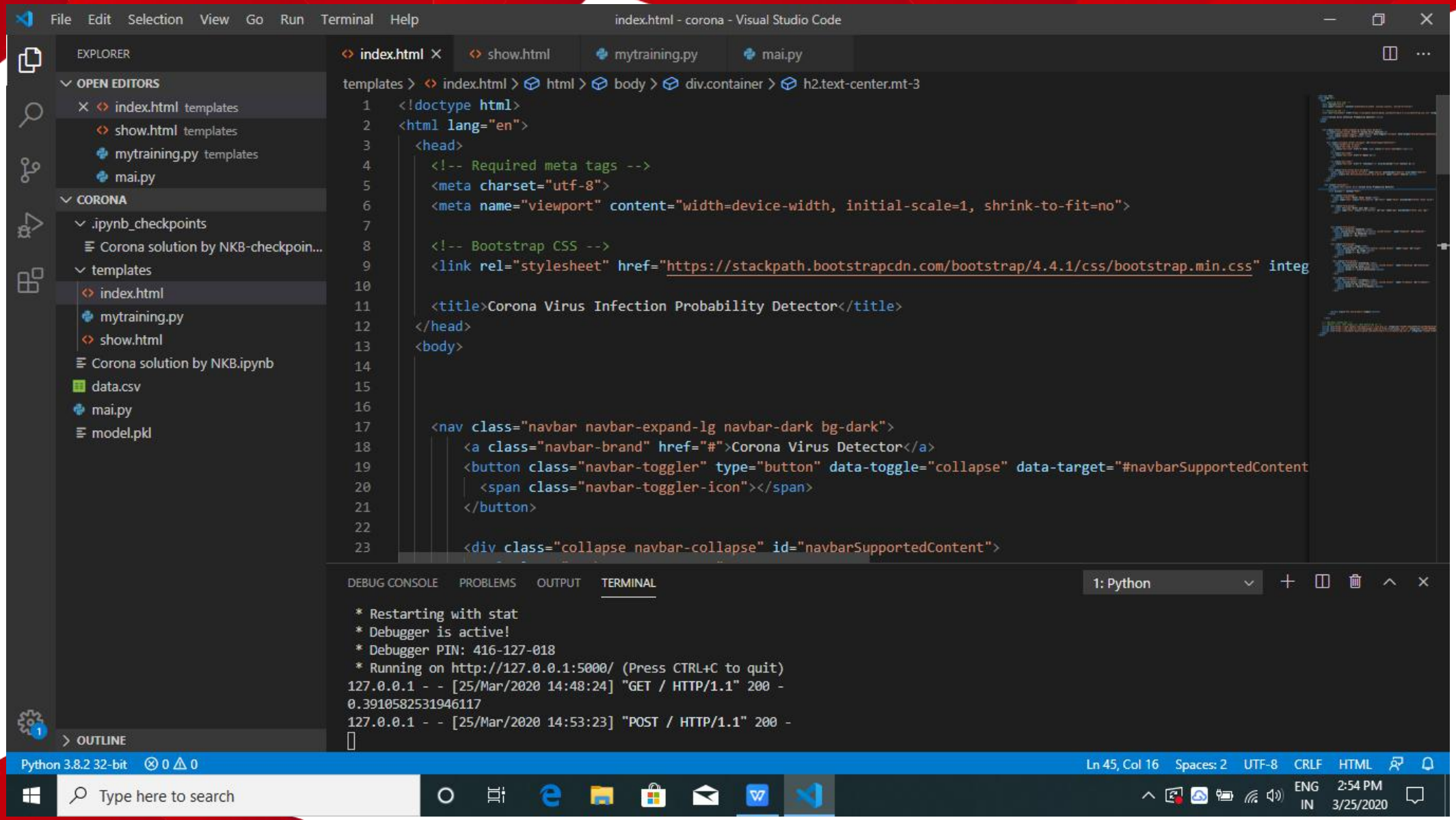
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templates > index.html > html > body > div.container > h2.text-center.mt-3
<!doctype html>
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<head>
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Type here to search
ENG IN
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