



## **IT314 - Software Engineering** **System Testing**

## BlackBox Testing

### 1. Signup test:

#### Email constraints:

- Should contain '@' sign with character before and after.
- Should not already be registered.
- Characters Constraints (5,254)

#### Password constraints:

- Password must contain capital letter [A-Z]
- must contain between 8-128 characters

#### Password confirmation:

- Must be the same as Password.

#### Username Constraints:

- Characters length 3-30.
- Should not already be registered.

#### First and Last Name:

- Characters Length 2-50.

#### Equivalence class partitioning:

**Note:** Each attribute of the equivalence table which satisfies their constraints is considered as the valid input otherwise it will be considered as invalid input.

Equivalence class	E-mail	First Name	Last Name	Password	Confirm Password	Result
E1	valid	valid	valid	valid	valid	success
E2	invalid	valid	valid	valid	valid	error
E3	valid	valid	valid	invalid	valid	error
E4	valid	valid	valid	valid	invalid	error
E5	valid	valid	valid	invalid	invalid	error
E6	invalid	invalid	invalid	valid	valid	error
E7	invalid	valid	invalid	invalid	valid	error
E8	invalid	invalid	valid	invalid	invalid	error

### Boundary value analysis:

E-mail	First Name	Last Name	Password	Confirm Password	Expected Output	Actual Output	Reason
a@	Bhavya	patel	Abcd@123	Abcd@123	fail	fail	Email constraint
@gmail.com	bhavya	shah	Abcd@123	Abcd@123	fail	fail	Email constraint
abc@gmail.com	abc	xyz	abcd@123	abcd@123	success	success	Success
abc@gmail	kbc	ciajh	Abcd@1	Abcd@1	fail	fail	Email constraint
abc@gmail.com	rishi	asdf	Abcd@123	Abcd1234	fail	fail	Password Not match
abc@gmail.com	kanishk	kunj	Abcd@123	Abcd@123	success	success	E-mail Should not be used
abc@gmail.com	ab	deff	Abcd@123	Abcd@123	success	success	First Name constraint
abc@gmail.com	ramesh	ab	Abcd@123	Abcd@123	success	success	Last Name constraint

## 2. Login Test:

### Email constraint:

Required field (cannot be empty) , already registered.

### Password constraint:

Required field (cannot be empty) (not checking for another constraints as it is already stored in database)

### Equivalence class partitioning:

**Note:** Each attribute of the equivalence table which satisfies their constraints is considered as the valid input otherwise it will be considered as invalid input.

Equivalence class	E-mail	Password	Result
E1	valid	valid	success
E2	invalid	valid	error

E3	valid	invalid	error
E4	invalid	invalid	error

#### Boundary value analysis:

E-mail	Password	Expected Output	Actual Output	Reason
a@	Abcd@123	fail	fail	Email constraint
@gmail.com	Abcd@123	fail	fail	Email constraint
abc@gmail.com	abcd	fail	fail	Password constraint
abc@gmail.com	Abcd@123	success	fail	If E-mail Is not registered
abc@gmail.com	Abcd@123	success	success	If E-mail Is registered

### 3. Profile edit:

#### First/Last name:

Required field (cannot be empty)

Characters Constraint 2-50

#### Username:

Can't be changed

#### Email:

Can't be changed

#### Equivalence class partitioning:

**Note:** Each attribute of the equivalence table which satisfies their constraints is considered as the valid input otherwise it will be considered as invalid input.

Equivalence class	First Name	Last Name	Result
E1	valid	valid	success
E2	invalid	valid	error
E3	valid	invalid	error

E4	invalid	invalid	error
----	---------	---------	-------

#### Boundary value analysis:

First Name	Last Name	Expected Output	Actual Output	Reason
	xy	fail	fail	First name can't be NULL
abc		fail	fail	Last name can't be NULL
abc	xy	fail	fail	Last name less than 3 characters
abc	abcd	pass	pass	-
ab	abcd	fail	fail	First name less than 3 characters
Rishi	Shah	Pass	Pass	-

#### 4. Entering Location:

##### Enter Location:

Required field (cannot be empty),  
Location Entered doesn't exist.

##### Equivalence class partitioning:

**Note:** Each attribute of the equivalence table which satisfies their constraints is considered as the valid input otherwise it will be considered as invalid input.

Equivalence class	Location	Result
E1	valid	success
E2	invalid	error

**Boundary value analysis:**

Location	Expected Output	Actual Output	Reason
Su	fail	fail	Location Invalid
Surat	Success	Success	Location valid
Ahmd	Fail	fail	Location Invalid (Spelling)

## Acceptance Testing

### 1. Sign up:

Test: 1

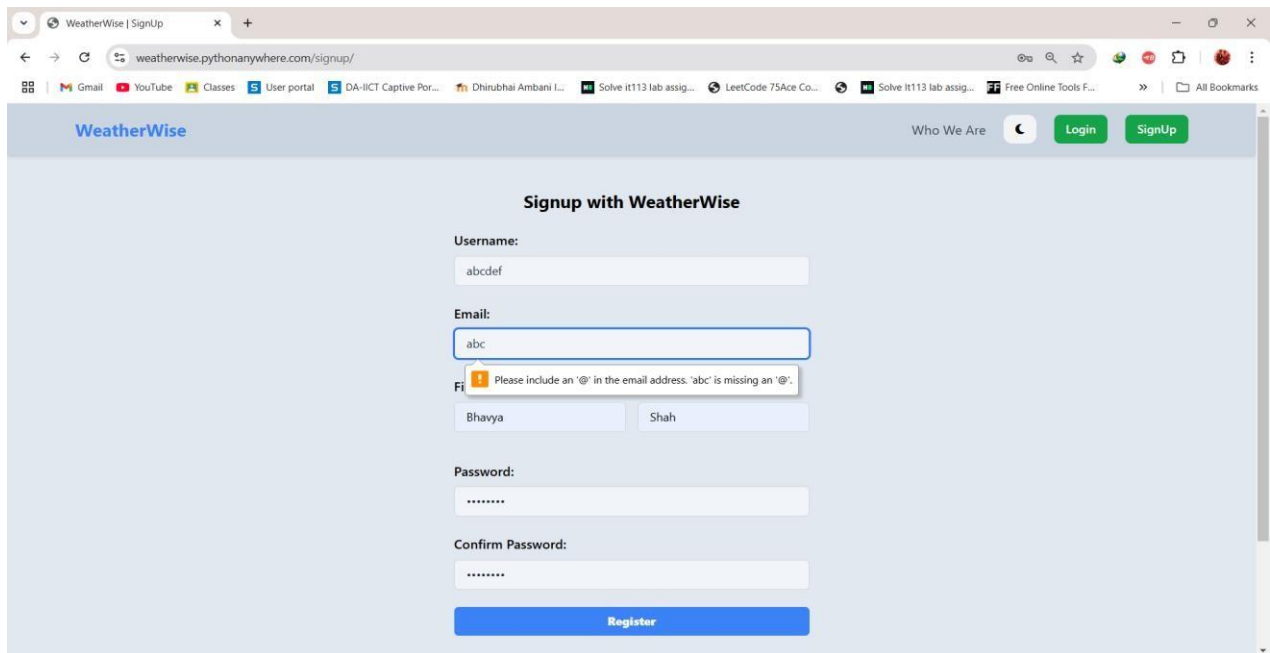
Email: abc

password: Abcd@123

First Name: Bhavya

Last Name: Shah

Output: Invalid



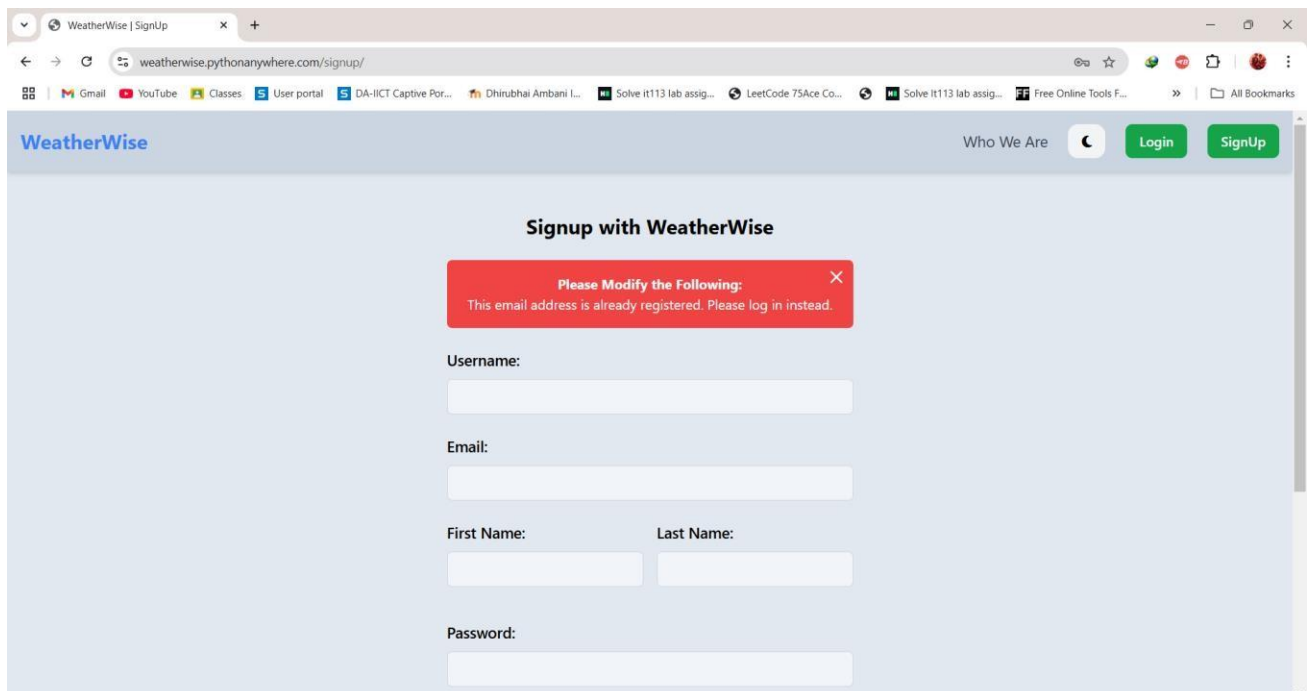
The screenshot shows the WeatherWise Signup page. The form fields are: Username (filled with 'abcdef'), Email (filled with 'abc'), First Name (filled with 'Bhavya'), Last Name (filled with 'Shah'), Password (filled with '\*\*\*\*\*'), and Confirm Password (filled with '\*\*\*\*\*'). A red error message is displayed below the Email field: "Please include an '@' in the email address. 'abc' is missing an '@'." The Register button is visible at the bottom.

Test: 2

Email: adit@gmail.com

password: Abcd@123

Output: Invalid



The screenshot shows the WeatherWise Signup page. A red error message is displayed at the top: "Please Modify the Following: This email address is already registered. Please log in instead." The form fields are: Username (empty), Email (empty), First Name (empty), Last Name (empty), Password (empty), and Confirm Password (empty). The Register button is visible at the bottom.

Test: 3

Email: [adit@gmail.com](mailto:adit@gmail.com) Password:

Abcd

First Name: Bhavya

Last Name: Shah

Output: Invalid

The screenshot shows a web browser window with the URL `weatherwise.pythonanywhere.com/signup/`. The page title is "Signup with WeatherWise". The form contains the following fields and values:

- Username:**
- Email:**
- First Name:**
- Last Name:**
- Password:**
- Confirm Password:**

A blue **Register** button is located at the bottom of the form.

The screenshot shows the same "Signup with WeatherWise" page, but with a red error message box at the top. The error message reads:

**Please Modify the Following:**  
This password is too short. It must contain at least 8 characters.  
This password is too common.

The form fields are now empty:

- Username:**
- Email:**
- First Name:**
- Last Name:**
- Password:**
- Confirm Password:**



Test: 4

Email: [amar.t@gmail.com](mailto:amar.t@gmail.com) password:

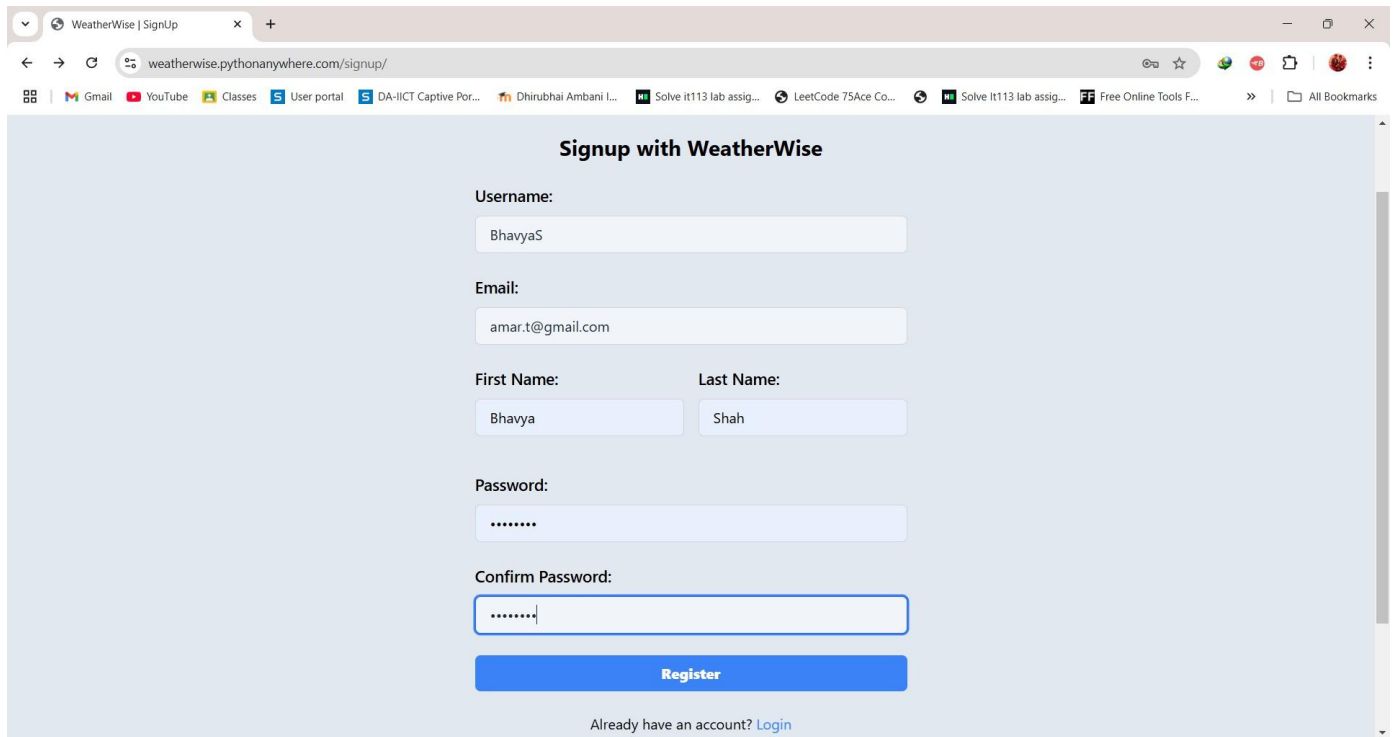
Rishi123

First Name: Bhavya

Last Name: Shah

Username: BhavyaS

Output: **Correct**



The screenshot shows the 'Signup with WeatherWise' form. The browser's address bar displays 'weatherwise.pythonanywhere.com/signup/'. The form includes fields for Username (BhavyaS), Email (amar.t@gmail.com), First Name (Bhavya), Last Name (Shah), Password (masked with dots), and Confirm Password (masked with dots). A blue 'Register' button is at the bottom. Below the button, a link says 'Already have an account? [Login](#)'.

**Signup with WeatherWise**

Username:

Email:

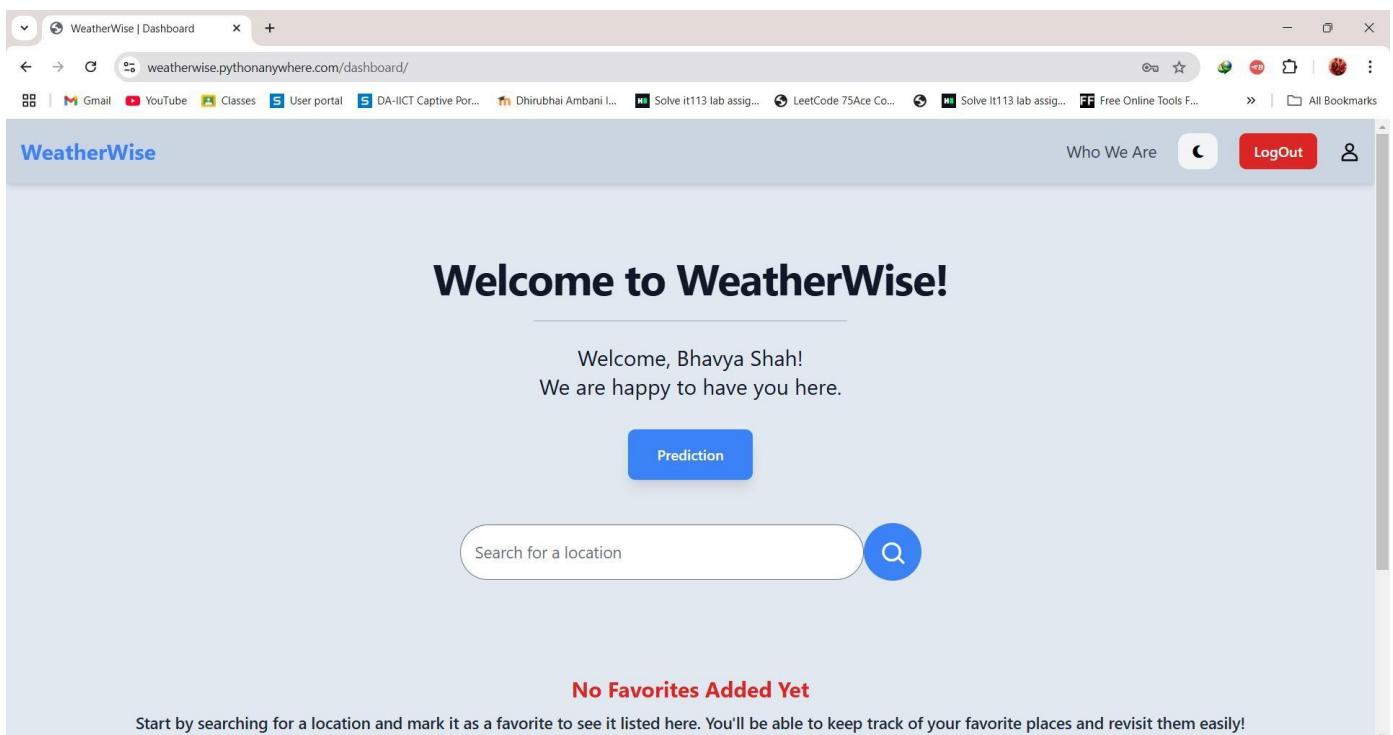
First Name:  Last Name:

Password:

Confirm Password:

[Register](#)

Already have an account? [Login](#)



The screenshot shows the 'WeatherWise Dashboard'. The browser's address bar displays 'weatherwise.pythonanywhere.com/dashboard/'. The page has a header with the 'WeatherWise' logo, a 'Who We Are' link, a 'LogOut' button, and a user icon. The main content area features a large 'Welcome to WeatherWise!' heading, followed by a personalized message: 'Welcome, Bhavya Shah! We are happy to have you here.' Below this is a blue 'Prediction' button. Further down is a search bar with the placeholder text 'Search for a location' and a magnifying glass icon. At the bottom, a red heading reads 'No Favorites Added Yet', followed by a message: 'Start by searching for a location and mark it as a favorite to see it listed here. You'll be able to keep track of your favorite places and revisit them easily!'.

**WeatherWise** Who We Are [LogOut](#)

# Welcome to WeatherWise!

Welcome, Bhavya Shah!  
We are happy to have you here.

[Prediction](#)

**No Favorites Added Yet**

Start by searching for a location and mark it as a favorite to see it listed here. You'll be able to keep track of your favorite places and revisit them easily!

Test 5:

Email: shahb1268@gmail.com

First Name: Bhavya

Last Name: Shah

Password: Rishi123

Username: bh

Output: Invalid

The screenshot shows a web browser window with the URL `weatherwise.pythonanywhere.com/signup/`. The page title is "Signup with WeatherWise". A red error message box at the top of the form states: "Please Modify the Following: The username must be at least 3 characters long. This email address is already registered. Please log in instead." The form fields include: Username (empty), Email (empty), First Name (empty), Last Name (empty), Receive Weather Alerts! (checkbox), Password (empty), and Confirm Password (empty). A blue "Register" button is at the bottom of the form. Below the form, there is a link: "Already have an account? [Login](#)". The browser's address bar shows several tabs: "WeatherWise | SignUp", "System\_Testing\_1.pdf", and a plus sign for more tabs. The Windows taskbar at the bottom shows the search bar, task view, and various application icons. The system tray on the right shows "Breaking news", "TikTok is one ste...", language settings (ENG, IN), and the date/time (12:41 AM, 12/7/2024).

Signup with WeatherWise

Please Modify the Following:  
The username must be at least 3 characters long.  
This email address is already registered. Please log in instead.

Username:

Email:

First Name:  Last Name:

Receive Weather Alerts! ☐

Password:

Confirm Password:

Register

Already have an account? [Login](#)

Test 6:

Email: shahb1268@gmail.com

First Name: B

Last Name: S

Password: Rishi123

Username: Bhavya\_Shah

Output: Invalid

The screenshot shows the WeatherWise Signup page. The form is titled "Signup with WeatherWise". It contains the following fields and values:

- Username: Bhavya\_Shah
- Email: shahb1268@gmail.com
- First Name: B
- Last Name: S
- Receive Weather Alerts! (checkbox is unchecked)
- Password: Rishi123 (masked with dots)
- Confirm Password: Rishi123 (masked with dots)

At the bottom of the form is a blue "Register" button. Below the form, there is a link: "Already have an account? [Login](#)".

The screenshot shows the WeatherWise Signup page with an error message displayed in a red box. The error message reads:

**Please Modify the Following:**  
This username is already taken. Please choose another one.  
This email address is already registered. Please log in instead.  
The first name must be at least 2 characters long.  
The last name must be at least 2 characters long.

The registration form is still visible below the error message, but the "Register" button is disabled.

Test 7

First Name: Bhavya\$

Last Name: Shah@

Username: Bhavya3636

Password: rishishah

Email: [shahb1268@gmail.com](mailto:shahb1268@gmail.com)

Output : invalid

The screenshot shows the WeatherWise website's signup page. The form is titled "Signup with WeatherWise". It contains the following fields and values:

- Username:** Bhavya 3636
- Email:** shahb1268@gmail.com
- First Name:** Bhavya\$
- Last Name:** Shah@
- Receive Weather Alerts!** (checkbox is unchecked)
- Password:** rishishah
- Confirm Password:** rishishah

A blue "Register" button is at the bottom of the form. The page header includes the WeatherWise logo, a "Who We Are" link, and "Login" and "SignUp" buttons. The browser's address bar shows the URL "weatherwise.pythonanywhere.com/signup/".

The screenshot shows the WeatherWise website's signup page with an error message displayed. The form is titled "Signup with WeatherWise". It contains the following fields and values:

- Username:** (empty)
- Email:** (empty)
- First Name:** (empty)
- Last Name:** (empty)
- Receive Weather Alerts!** (checkbox is unchecked)
- Password:** (empty)

A red error message box is displayed in the center of the page, stating:

**Please Modify the Following:**

- First name should only contain letters (a-z, A-Z).
- Last name should only contain letters (a-z, A-Z).
- Password must contain at least one uppercase letter.
- Password must contain at least one digit.
- Password must contain at least one special character (@, \$, %, \*, ^, &).
- Enter a valid username. This value may contain only letters, numbers, and @/./+/-/\_ characters.

The "Register" button is still present at the bottom of the form. The page header and browser address bar are the same as in the previous screenshot.

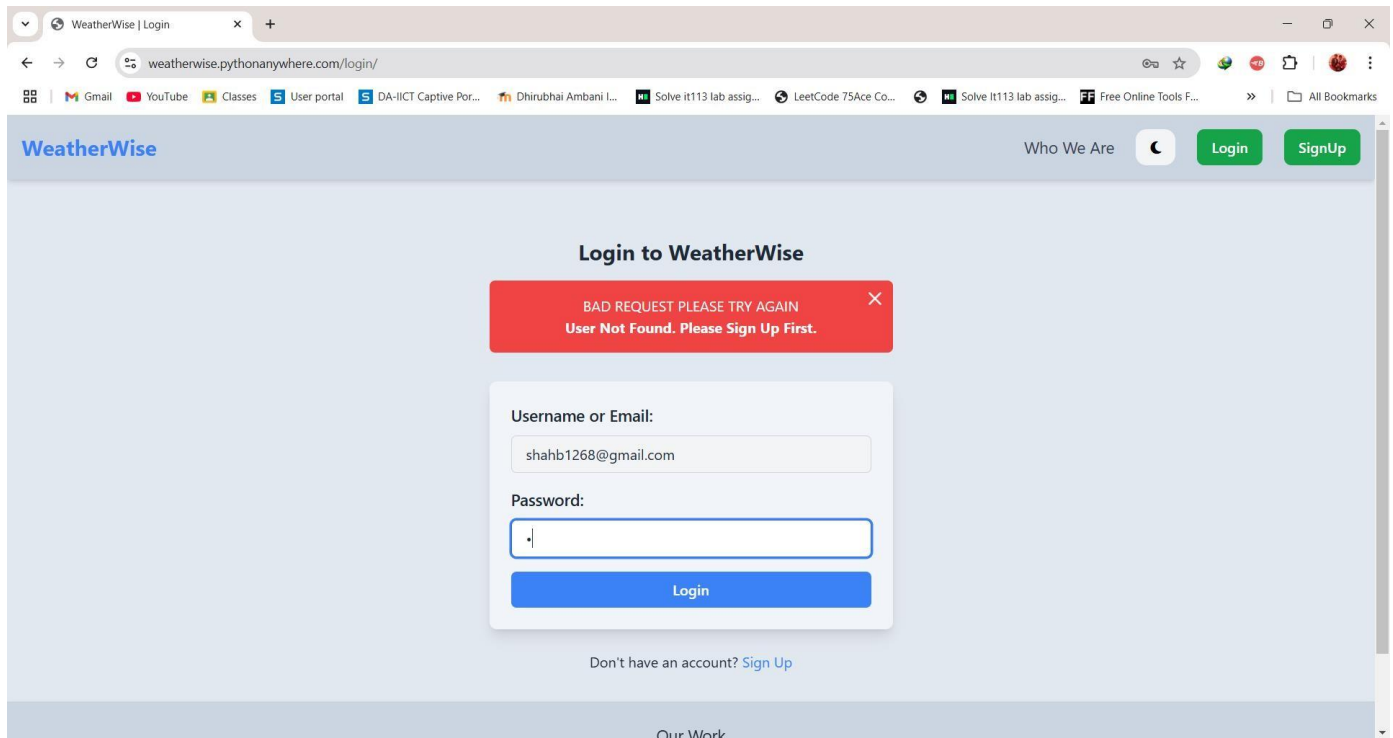
## 2. Log in

Test: 1

Email: Bhavya\_Shah

password: A

Output: Invalid



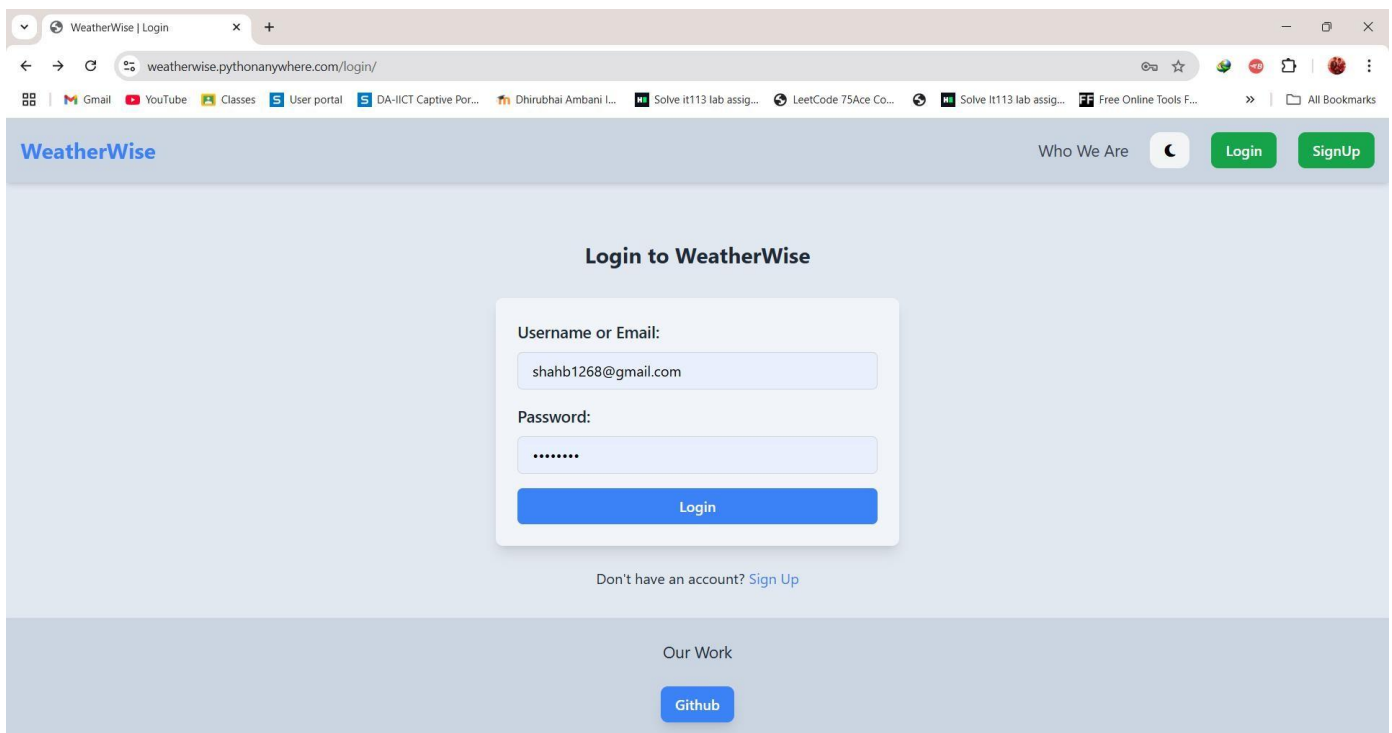
The screenshot shows a web browser window with the URL `weatherwise.pythonanywhere.com/login/`. The page has a header with the WeatherWise logo, a navigation menu, and links for "Who We Are", "Login", and "SignUp". The main content area is titled "Login to WeatherWise". A red error message box at the top of the login form states: "BAD REQUEST PLEASE TRY AGAIN User Not Found. Please Sign Up First." Below this, the login form has two input fields: "Username or Email:" with the value `shahb1268@gmail.com` and "Password:" with a single character entered. A blue "Login" button is at the bottom of the form. Below the form, there is a link: "Don't have an account? [Sign Up](#)". At the very bottom of the page, there is a link: "Our Work".

Test: 2

Email: shahb1268@gmail.com

Password: Rishi123

Output: Valid



The screenshot shows the same WeatherWise login page as the previous one, but with a successful login. The "Username or Email:" field still contains `shahb1268@gmail.com`, and the "Password:" field now contains `.....`. The blue "Login" button is still present. The error message box is no longer visible. The link "Don't have an account? [Sign Up](#)" is still present. At the bottom of the page, there is a link: "Our Work" and a button: "Github".

### 3. Edit Profile

Test: 1

First name: Bhavya

Last name: Blank

Email:a@gmail.com

Username:

Bhavya\_Shah

Output: Invalid

The screenshot shows a web browser window with the URL `weatherwise.pythonanywhere.com/profile/edit/`. The page title is "Edit Profile". A red error message box at the top of the form states: "BAD REQUEST PLEASE TRY AGAIN<sup>x</sup> Last Name is required". The form contains the following fields: Username (Bhavya\_Shah), Email (a@gmail.com), First Name (Bhavya), Last Name (empty), Receive Notifications (checkbox), and Preferred Location (empty). At the bottom are "Save Changes" and "Cancel" buttons.

The screenshot shows the same "Edit Profile" page, but with detailed validation feedback. A red message box says: "Please Modify the following:" followed by a list: "• First\_name: Ensure this value has at least 2 characters (it has 1).". The form fields are: Username (Bhavya\_Shah), Email (shahb1268@gmail.com), First Name (a), Last Name (cba), and Receive Weather Alerts! (checkbox). "Save Changes" and "Cancel" buttons are at the bottom. The Windows taskbar is visible at the bottom of the screen.

Test: 2 (Above Picture)

First name: a

Last name: cba

Email:

shahb1268@gmail.co

m

Username: Bhavya\_Shah

Output:Invalid

Test: 3

First name: bca

Last name: v

Email:

shahb1268@gmail.co

m

Username: Bhavya\_Shah

Output:Invalid

WeatherWise | Edit Profile

weatherwise.pythonanywhere.com/profile/edit/

### Edit Profile

**Please Modify the following:**

- **Last\_name:** Ensure this value has at least 2 characters (it has 1).

Username: Bhavya\_Shah

Email: shahb1268@gmail.com

First Name: bca

Last Name: v

Receive Weather Alerts! ☐

[Save Changes](#) [Cancel](#)

Test: 4

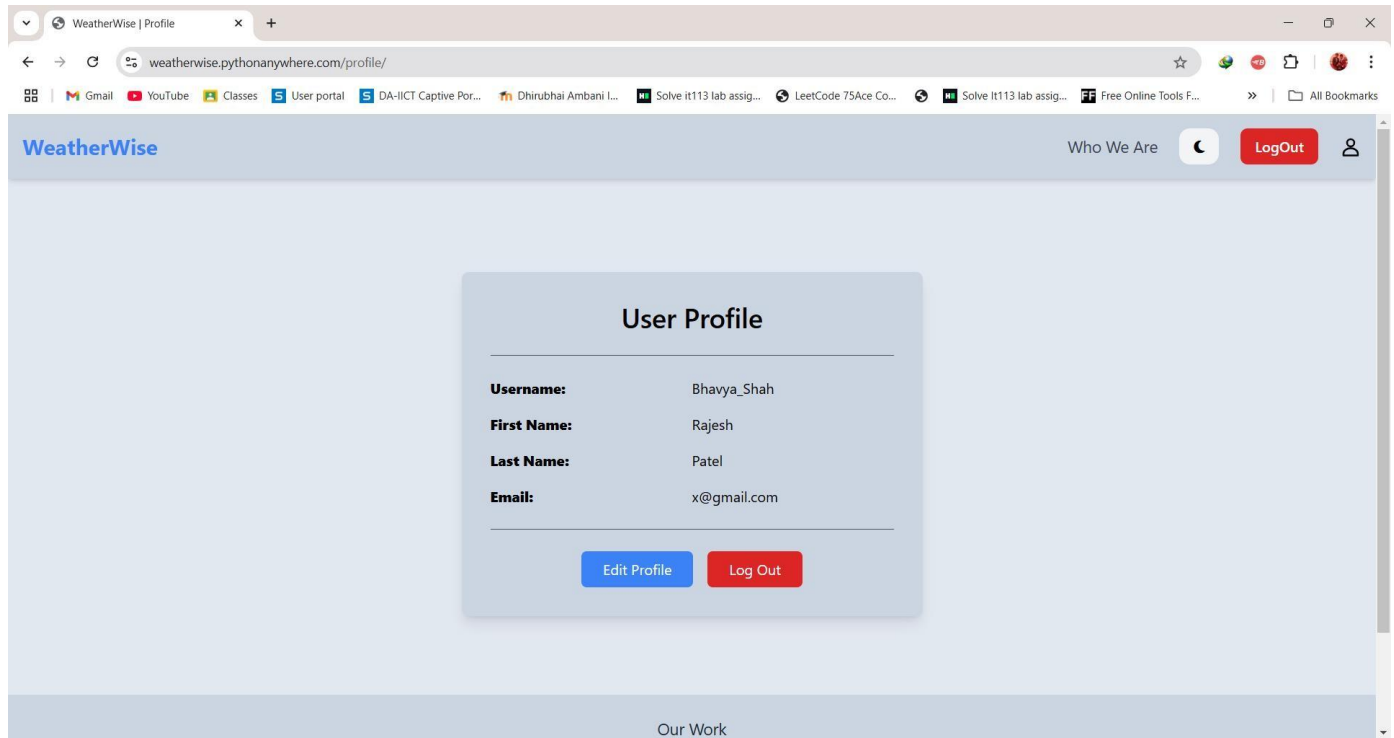
First name: Rajesh

Last name: Patel

Email: x@gmail.com

Username: Bhavya3604

Output: Valid



Test: 5

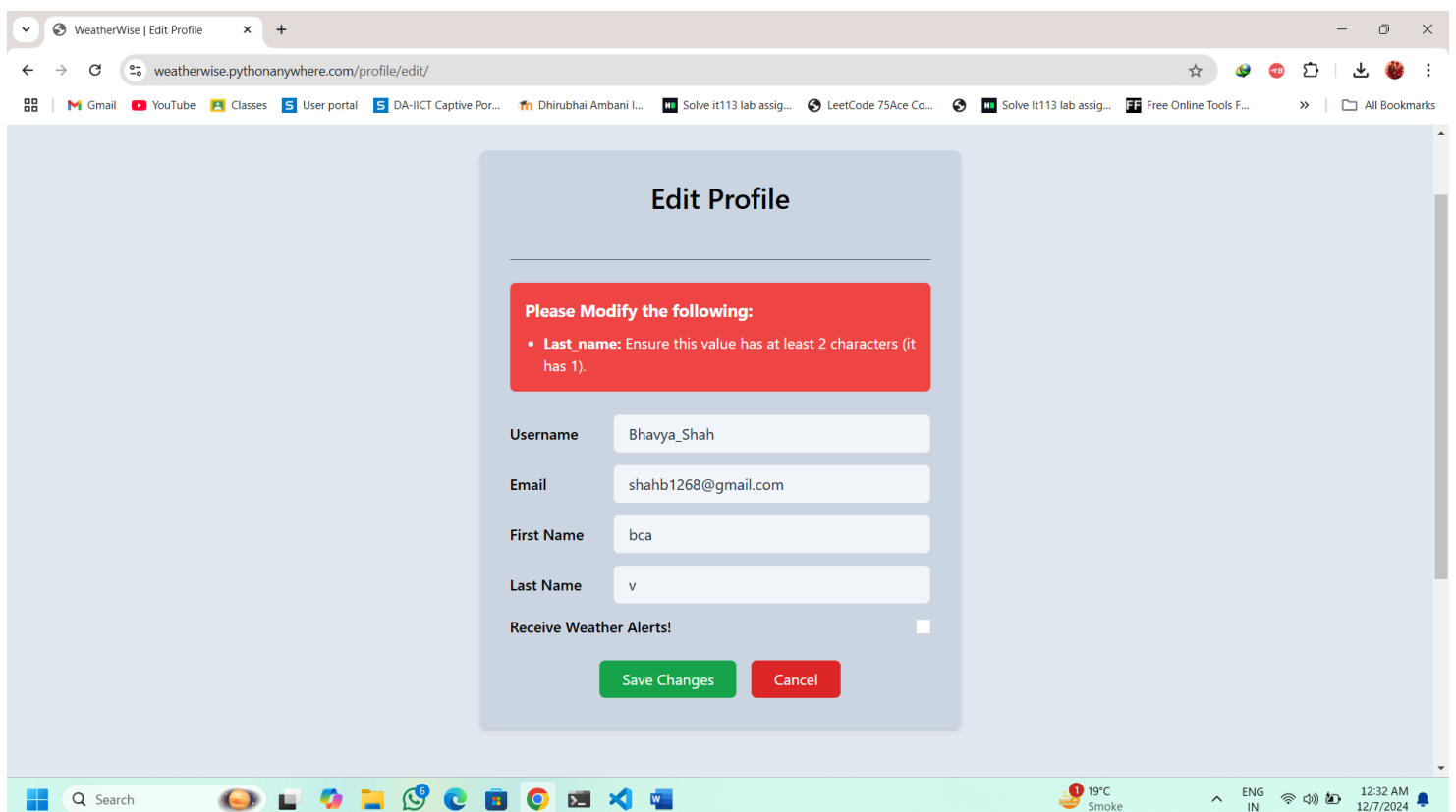
First name: bca

Last name: v

Email: shahb1268@gmail.com

Username: Bhavya\_Shah

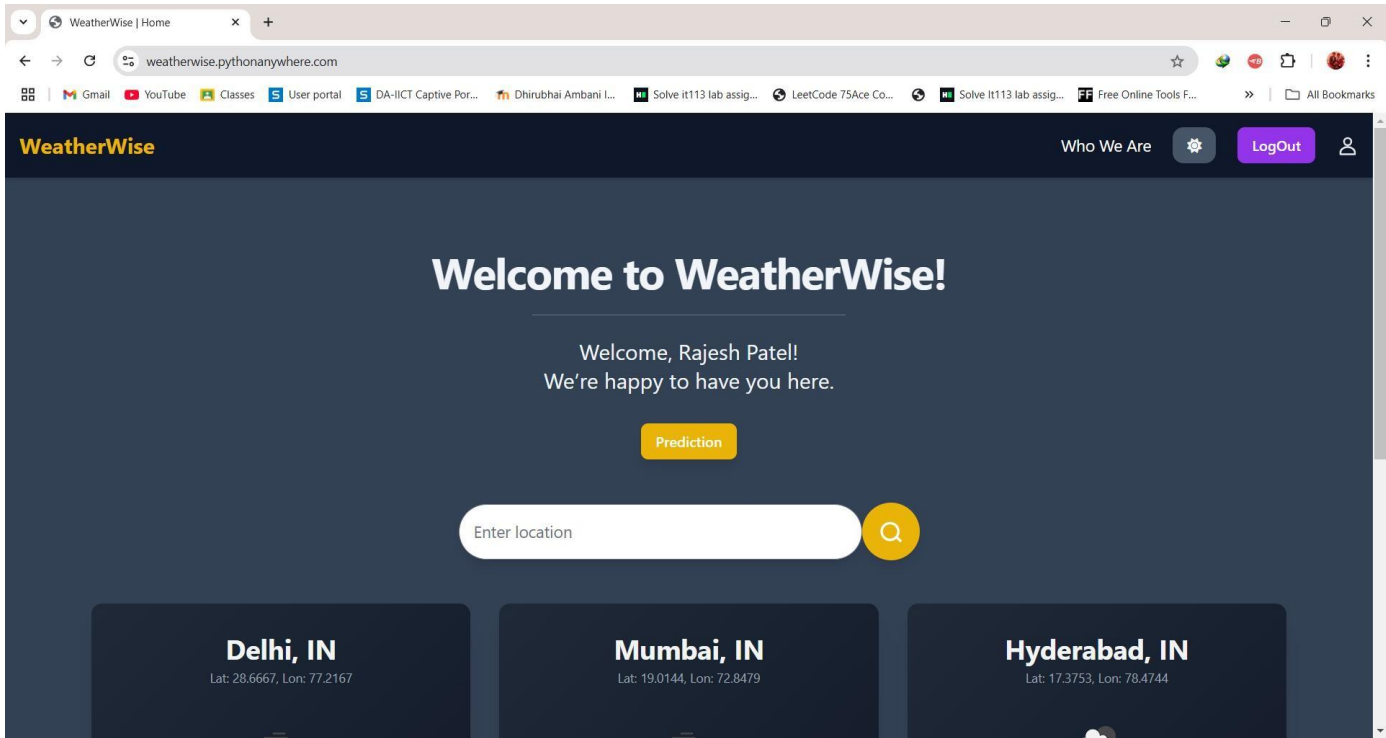
Output: Valid



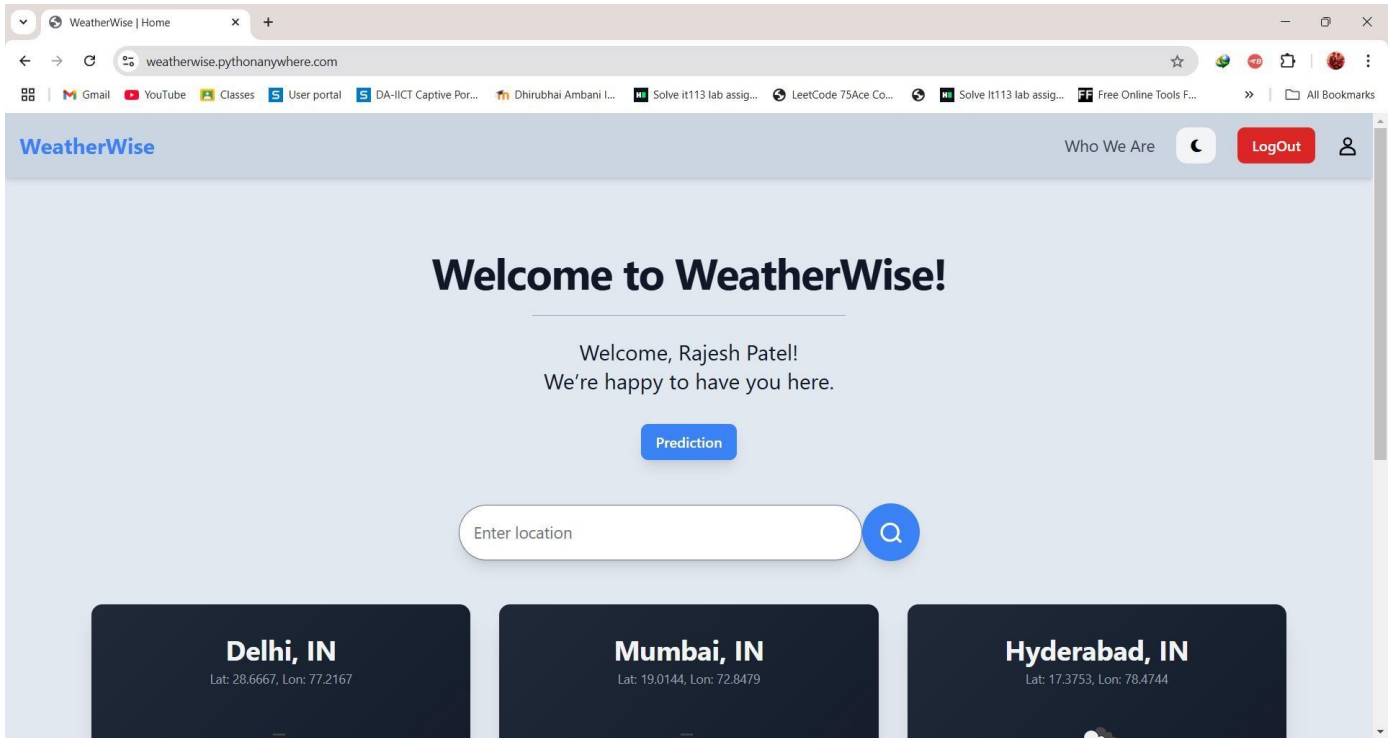


4. Dark Mode:

Test: 1  
Dark Mode: On



Test: 2  
Dark Mode: Off

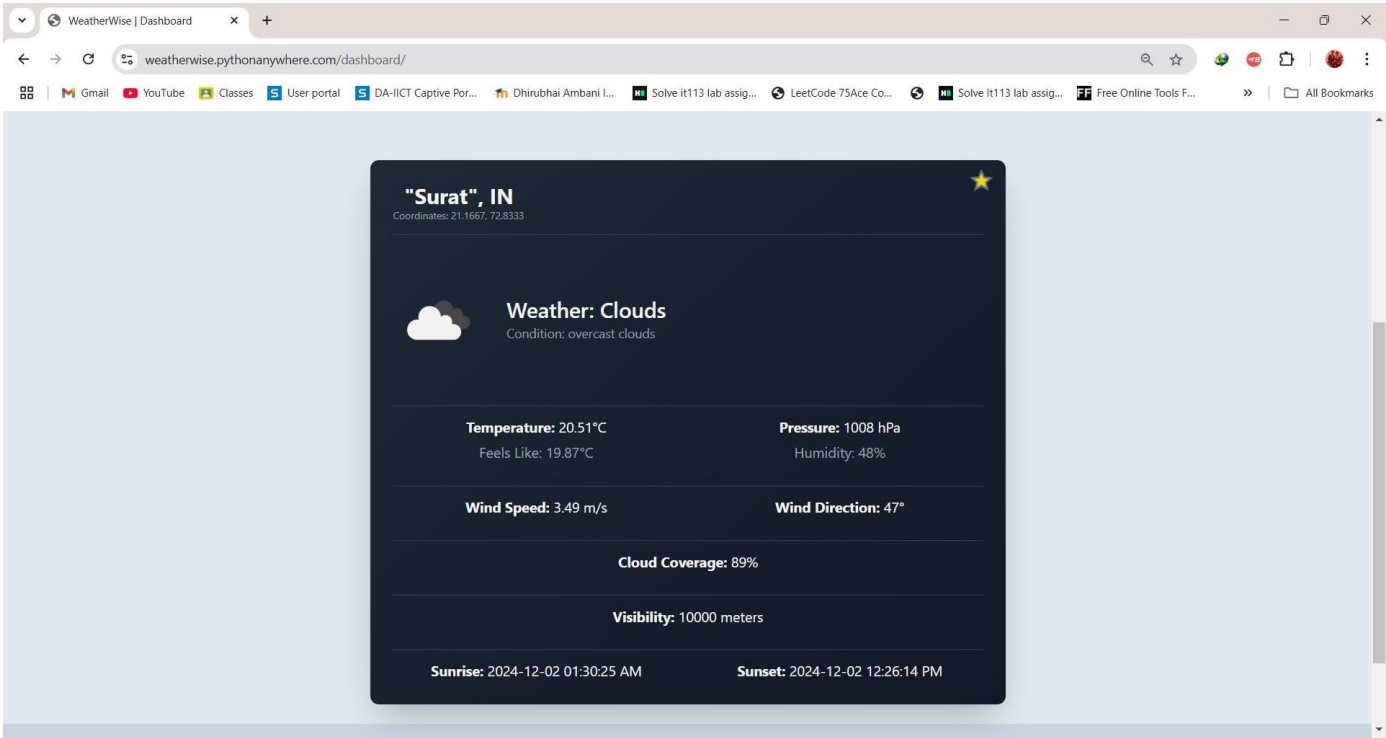


5. Location

Test: 1

Location: Surat

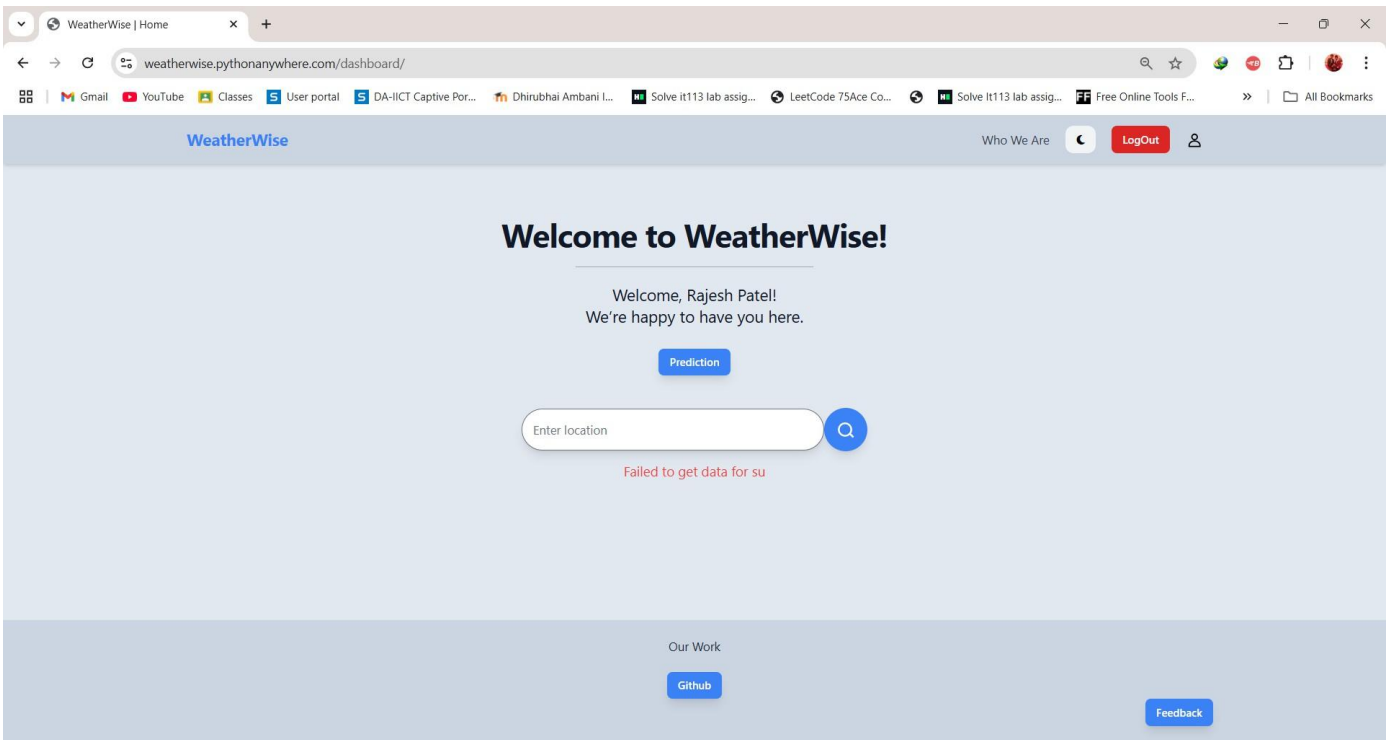
Output: Valid



Test: 2

Location: Su

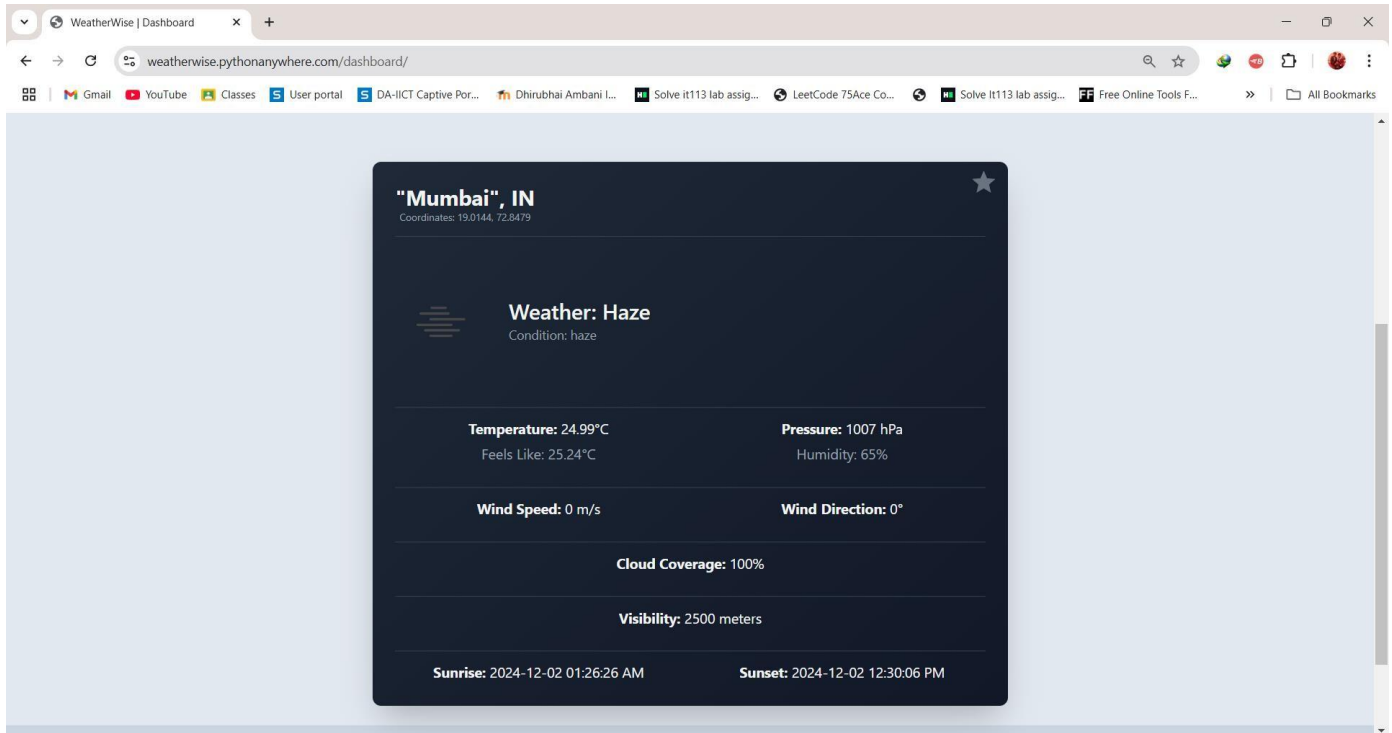
Output: Invalid



Test: 3

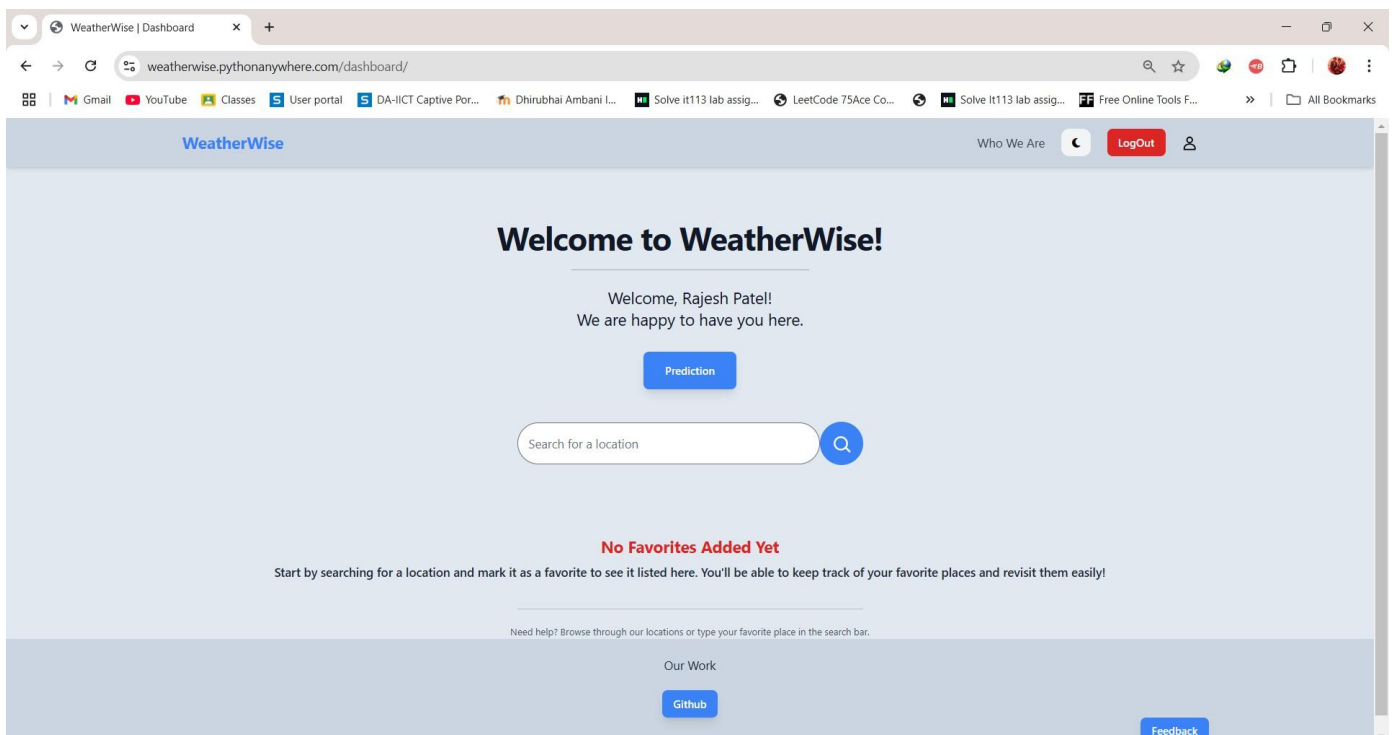
Location: Bombay

Output: Valid



## 6. Adding Favorites:

When Favorite Location is not set



After Adding a location to the Favorite:

