MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Final Year Internship Report

on

Web development using Django

Submitted By:

Shubham Puri

0901CS181102

Faculty Mentor:

Prof. Amit Kumar Manjhvar

Assistant Professor, CSE

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE

GWALIOR - 474005 (MP) est. 1957

MAY-JUNE 2022

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Web development using Django

A final year internship report submitted in partial fulfilment of the requirement for the degree of

BACHELOR OF TECHNOLOGY

in

COMPUTER SCIENCE AND ENGINEERING

Submitted by:

Shubham Puri

0901CS181102

Internship Faculty Mentor:

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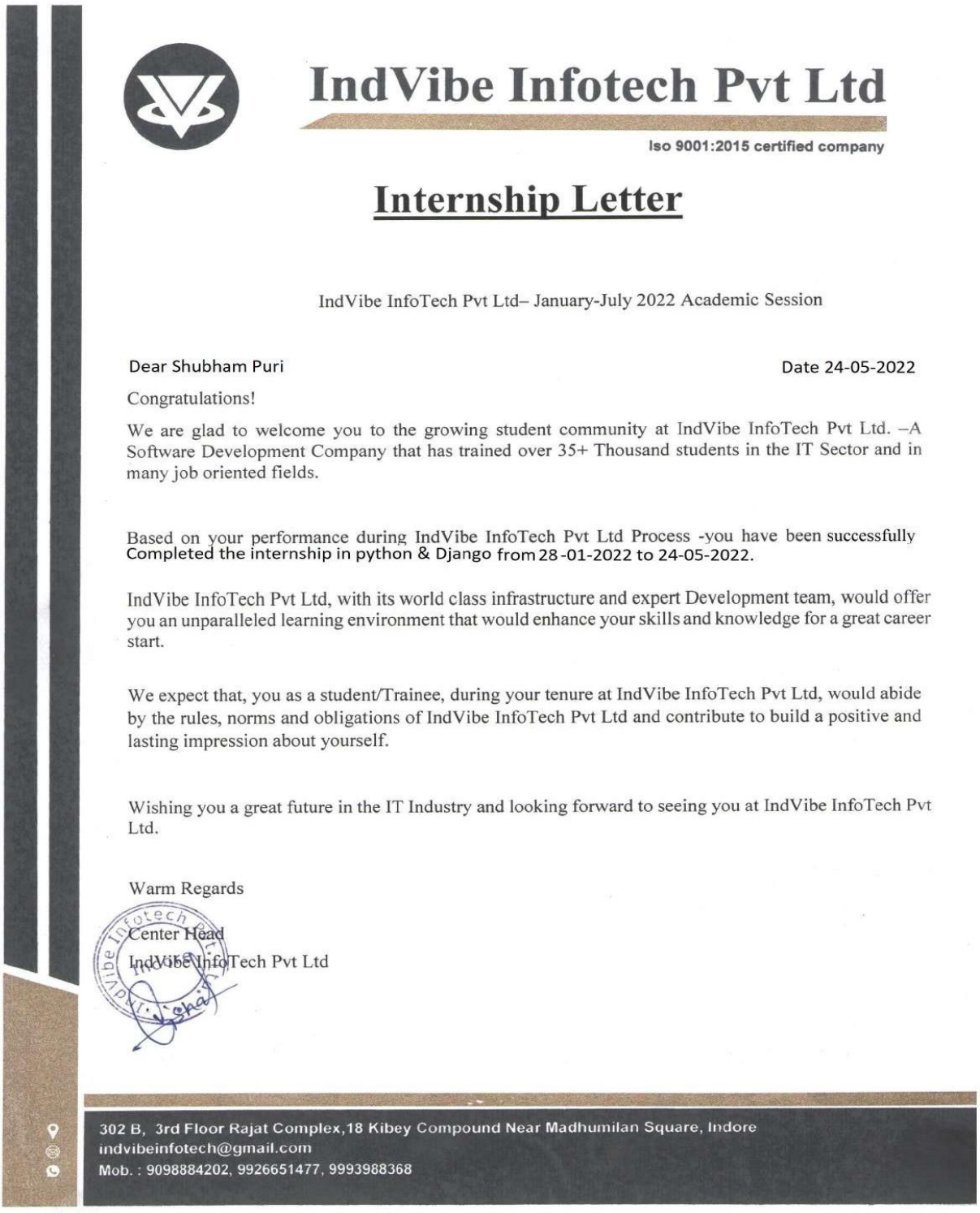
GWALIOR - 474005 (MP) est. 1957

MAY-JUNE 2022

Internship Certificate Received from Industry/Company



IndVibe Infotech Pvt Ltd

Iso 9001:2015 certified company

Internship Letter

IndVibe InfoTech Pvt Ltd– January-July 2022 Academic Session

Dear Shubham Puri

Date 24-05-2022

Congratulations!

We are glad to welcome you to the growing student community at IndVibe InfoTech Pvt Ltd. –A Software Development Company that has trained over 35+ Thousand students in the IT Sector and in many job oriented fields.

Based on your performance during IndVibe InfoTech Pvt Ltd Process -you have been successfully Completed the internship in python & Django from 28-01-2022 to 24-05-2022.

IndVibe InfoTech Pvt Ltd, with its world class infrastructure and expert Development team, would offer you an unparalleled learning environment that would enhance your skills and knowledge for a great career start.

We expect that, you as a student/Trainee, during your tenure at IndVibe InfoTech Pvt Ltd, would abide by the rules, norms and obligations of IndVibe InfoTech Pvt Ltd and contribute to build a positive and lasting impression about yourself.

Wishing you a great future in the IT Industry and looking forward to seeing you at IndVibe InfoTech Pvt Ltd.

Warm Regards

Center Head

IndVibe InfoTech Pvt Ltd

302 B, 3rd Floor Rajat Complex,18 Kibey Compound Near Madhumilan Square, Indore
indvibeinfotech@gmail.com
Mob. : 9098884202, 9926651477, 9993988368

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

CERTIFICATE

This is certified that **Shubham Puri(0901CS181102)** has submitted the Internship report titled of the work he has done under the mentorship of **Prof. Amit Kumar Manjhvar**, in partial fulfilment of the requirement for the award of degree of Bachelor of Technology in Computer Science and Engineering from Madhav Institute of Technology and Science, Gwalior.

Prof. Amit Kumar Manjhvar

Assistant Professor

Computer Science and Engineering

27/05/22

Dr. Manish Dixit

Professor and Head,

Computer Science and Engineering

Dr. Manish Dixit
Professor & HOD
Department of CSE
M.I.T.S. Gwalior

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MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

DECLARATION

I hereby declare that the work being presented in this Internship report, for the partial fulfilment of requirement for the award of the degree of Bachelor of Technology in CSE at Madhav Institute of Technology & Science, Gwalior is an authenticated and original record of my work under the mentorship of **Prof. Amit Kumar Manjhvar, Assistant Professor**, Department of **CSE**.

I declare that I have not submitted the matter embodied in this report for the award of any degree or diploma anywhere else.

Shubham.

Shubham Puri

0901CS181102.

IV Year.

Computer Science and Engineering

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MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

ACKNOWLEDGEMENT

The full semester internship has proved to be pivotal to my career. I am thankful to my institute, **Madhav Institute of Technology and Science** to allow me to continue my disciplinary/interdisciplinary internship as a curriculum requirement, under the provisions of the Flexible Curriculum Scheme (based on the AICTE Model Curriculum 2018), approved by the Academic Council of the institute. I extend my gratitude to the Director of the institute, **Dr. R. K. Pandit** and Dean Academics, **Dr. Manjaree Pandit** for this

I would sincerely like to thank my department, **Department of Computer Science and Engineering, for allowing** me to explore this internship. I humbly thank **Dr. Manish Dixit**, Professor and Head, Department of Computer Science and Engineering, for his continued support during the course of this engagement, which eased the process and formalities involved.

I am sincerely thankful to my faculty mentors. I am grateful to the guidance of,**Prof. Amit Kumar Manjhvar, Assistant Professor**, Department of Computer Science and Engineering, for his continued support and close mentoring throughout the internship. I am also very thankful to the faculty and staff of the department.

shubham

Shubham Puri

0901CS181102,

IV Year,

Computer Science and Engineering

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ABSTRACT

Weather forecasting is the prediction of the state of the atmosphere for a given location using the application of science and technology. This includes temperature, rain, cloudiness, Weather warnings are a special kind of short-range forecast carried out for the protection of human life. Weather warnings are issued by the governments throughout the world for all kinds of threatening weather events including tropical storms and tropical cyclones depending upon the location. The forecast may be short-range or Long-range. It is a very interesting and challenging task. This report provides a basic understanding of the purpose and scope of weather forecasts.

About the Organization:

This Internship is a Training on web development By **Indvibe infotech Private Limited**, Indore using python with django Frameworks.This training is followed by a project in which we have to implement what we have been taught throughout the training**.**

Objective of Proposed Work:

As the title suggests this is a online website which provide real time weather check, that can be seen online on this website. The objective of our project is to provide information to people and organization to reduce weather related losses and enhance social benefits . We surely provide some basic functionalities as well as more good option in this to improve the experience of user.

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LIST OF ABBREVIATIONS

Abbreviation	Description
API	Application Programming Interface
CSS	Cascading Style Sheets
HTML	Hyper Text Markup Language
JS	Javascript
JSON	Javascript Object Notion
UI	User Interface
UX	User Experience
UML	Unified Modeling Language
XML	Extensible Markup Language

Chapter 1:

INTRODUCTION

1.1 Objective

As the title suggests this is a online website which provide real time weather check, that can be seen online on this website. The objective of our project is to provide information to people and organization to reduce weather related losses and enhance social benefits . We surely provide some basic functionalities as well as more good option in this to improve the experience of user.

1.2 Scope

The demand for weatherforcasting application in support of critical decision making has grown very fastly during the past few years and will grow even faster in upcoming years.

1.3 Problems in existing system

The existing system is well and good also, but as we know there are lot of problems we faced during weather prediction like communication gap,quality of observational, data,accuracy and precision.

1.4 About the website

We created the website where user can see the temperature of any city all over the world.It provide most accurate result.changes weather in every hours as according to weather changes.

Chapter 2:

System Requirements

2.1 Information gathering

We have used API model . we take the API from different site for real time changes in atmosphere.

2.2 System feasibility

Feasibility is the factor which decides that the system which we are using is properly developed or not.It is a very important stage during making of any project.

2.3 Software Implementation Technology

For front end-

1. **HTML**

HTML (HyperText Markup Language) is the most basic building block of the Web. It defines the meaning and structure of web content.

2. **CSS**

CSS stands for Cascading Style Sheets CSS describes how HTML elements are to be displayed on screen, paper, or in other media CSS saves lot of work. It can control the layout of multiple web pages all at once.

3. **JAVASCRIPT**

JavaScript is a dynamic programming language that's used for web development, in web applications, for game development, and lots more. It allows you to implement dynamic features on web pages that cannot be done with only HTML and CSS.

4. Bootstrap

Bootstrap is the most popular HTML, CSS and JavaScript framework for developing a responsive and mobile friendly website.It includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many others.

For backend-:

1.Python

Python is an interpreted, object-oriented, high-level programming language with dynamic semantics. Its high-level built in data structures, combined with dynamic typing and dynamic binding.

2. Django

Django is an advanced Web framework written in Python that makes use of the model view controller (MVC) architectural pattern. Django was created in a fast-moving newsroom environment, and its key objective is to ease the development of complicated, database-driven websites

3.SQLlite

SQLite is an embedded SQL database engine. Unlike most other SQL databases, SQLite does not have a separate server process. SQLite reads and writes directly to ordinary disk files. A complete SQL database with multiple tables, indices, triggers, and views, is contained in a single disk file.

Chapter 3

System Analysis

3.1 Information Flow Representation

3.1.1 UML Project stage

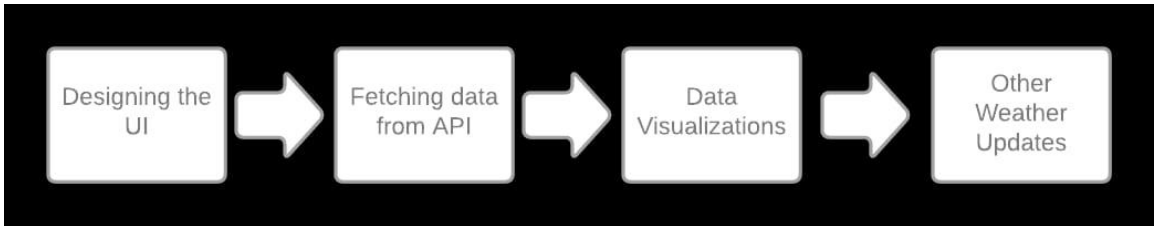


Fig:1

3.1.2-UML system flow

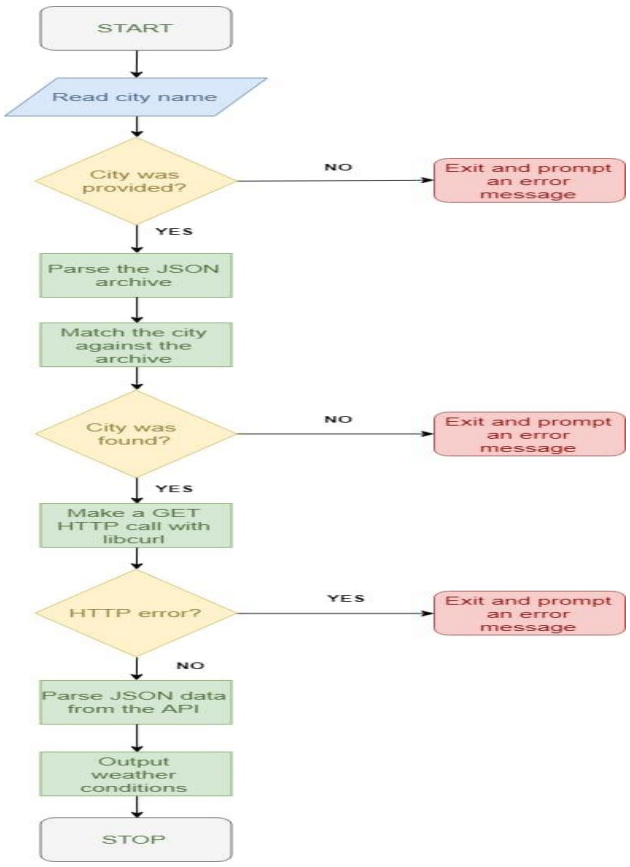


Fig: 2

Chapter 4

System Design-

Features Weather Forecast Project In Python Django:

1. Time to time update weather
2. Temperature Update.
3. Last 7 days data Predict.
4. change weather in every hour as according to weather changes.
5. provide accurate data information about weather.
6. user can search weather anytime and anywhere.
7. any places data can be search and provide information as according to weather.
8. help user to travel.
9. help User to future plans for holidays.

Weather forecasts are made by collecting as much data as possible about the current state of the atmosphere (particularly the temperature, humidity and wind) and using understanding of atmospheric processes (through meteorology) to determine how the atmosphere evolves in the future.

However, the chaotic nature of the atmosphere and incomplete understanding of the processes mean that forecasts become less accurate as the range of the forecast increases.

Traditional observations made at the surface of atmospheric pressure, temperature, wind speed, wind direction, humidity, precipitation are collected routinely from trained observers, automatic weather stations or buoys.

During the data assimilation process, information gained from the observations is used in conjunction with a numerical model's most recent forecast for the time that observations were made to produce the meteorological analysis.

Numerical weather prediction models are computer simulations of the atmosphere.

The output from the model provides the basis of the weather forecast.

4.1 Interface Overview

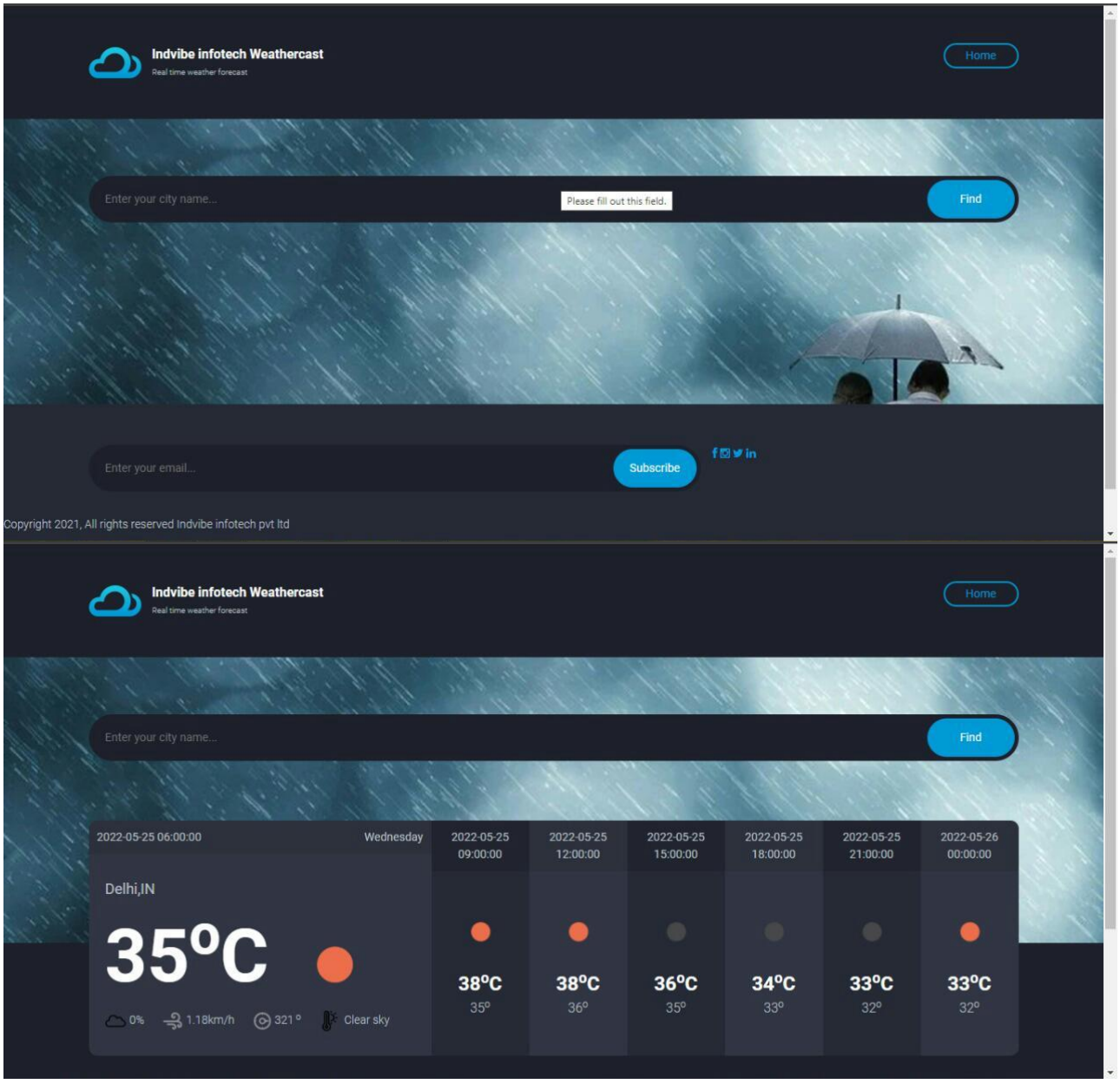
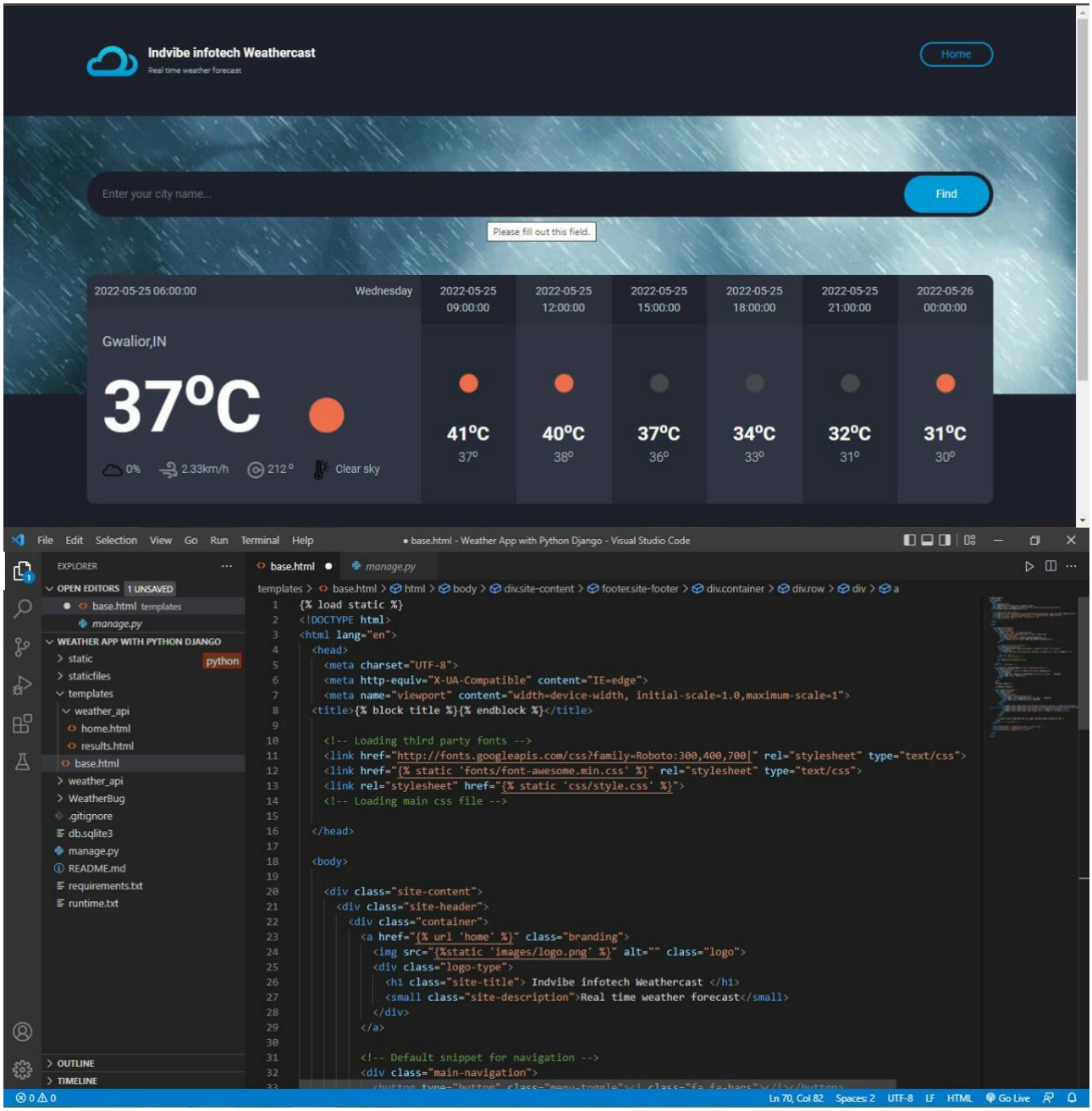


Fig: 3


Indvibe infotech Weathercast
Real time weather forecast
Home
Enter your city name...
Find
Please fill out this field.
2022-05-25 06:00:00
Wednesday
Gwalior,IN
37°C
0%
2.33km/h
212°
Clear sky
2022-05-25 09:00:00
41°C
37°
2022-05-25 12:00:00
40°C
38°
2022-05-25 15:00:00
37°C
36°
2022-05-25 18:00:00
34°C
33°
2022-05-25 21:00:00
32°C
31°
2022-05-26 00:00:00
31°C
30°
File Edit Selection View Go Run Terminal Help
• base.html - Weather App with Python Django - Visual Studio Code
EXPLORER
OPEN EDITORS 1 UNSAVED
base.html templates
manage.py
WEATHER APP WITH PYTHON DJANGO
static
staticfiles
templates
weather_api
home.html
results.html
base.html
weather_api
WeatherBug
.gitignore
db.sqlite3
manage.py
README.md
requirements.txt
runtime.txt
OUTLINE
TIMELINE
base.html
manage.py
templates > base.html > html > body > div.site-content > footer.site-footer > div.container > div.row > div > a
{% load static %}
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta http-equiv="X-UA-Compatible" content="IE=edge">
<meta name="viewport" content="width=device-width, initial-scale=1.0,maximum-scale=1">
<title>{% block title %}{% endblock %}</title>
<!-- Loading third party fonts -->
<link href="http://fonts.googleapis.com/css?family=Roboto:300,400,700|" rel="stylesheet" type="text/css">
<link href="{% static 'fonts/font-awesome.min.css' %}" rel="stylesheet" type="text/css">
<link rel="stylesheet" href="{% static 'css/style.css' %}">
<!-- Loading main css file -->
</head>
<body>

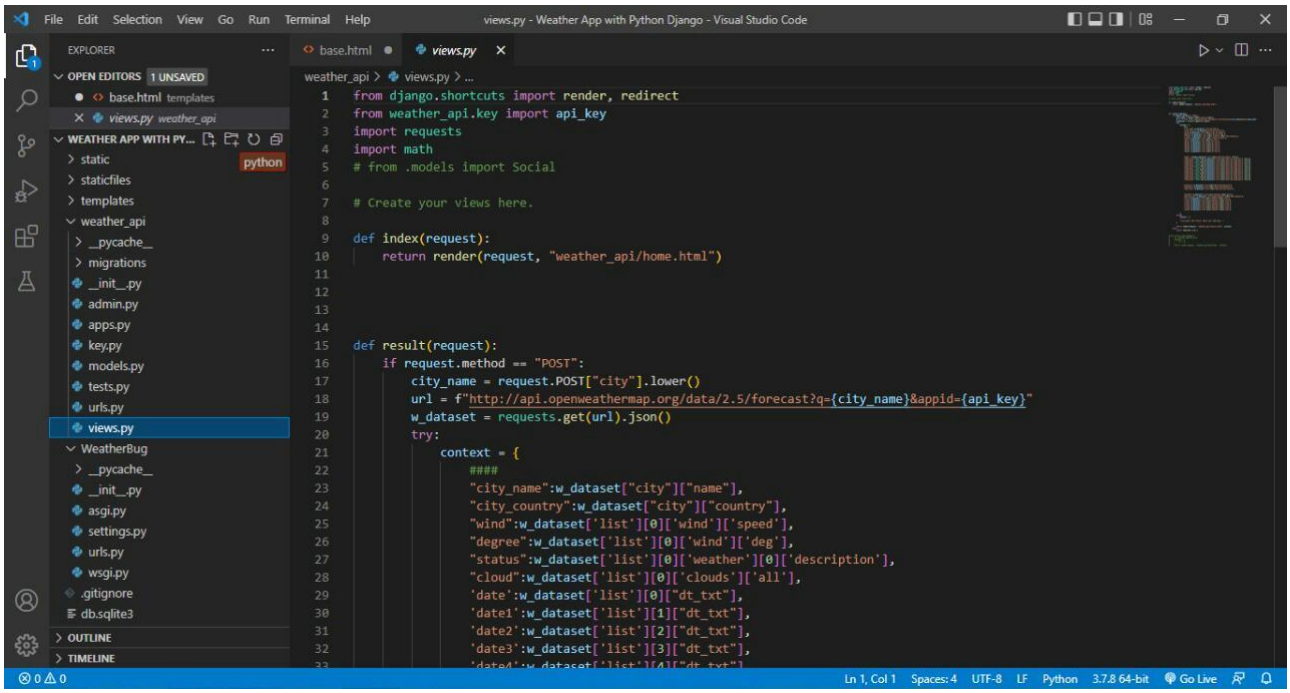
<img src="{%static 'images/logo.png' %}" alt="" class="logo">

<h1 class="site-title"> Indvibe infotech Weathercast </h1>
<small class="site-description">Real time weather forecast</small>

<!-- Default snippet for navigation -->

Ln 70, Col 82 Spaces: 2 UTF-8 LF HTML Go Live

Fig: 4


File Edit Selection View Go Run Terminal Help
views.py - Weather App with Python Django - Visual Studio Code
EXPLORER
OPEN EDITORS 1 UNSAVED
base.html templates
views.py weather_api
WEATHER APP WITH PY...
static
staticfiles
templates
weather_api
__pycache__
migrations
__init__.py
admin.py
apps.py
key.py
models.py
tests.py
urls.py
views.py
WeatherBug
__pycache__
__init__.py
asgi.py
settings.py
urls.py
wsgi.py
.gitignore
db.sqlite3
OUTLINE
TIMELINE
base.html
views.py
weather_api > views.py > ...
from django.shortcuts import render, redirect
from weather_api.key import api_key
import requests
import math
# from .models import Social
# Create your views here.
def index(request):
return render(request, "weather_api/home.html")
def result(request):
if request.method == "POST":
city_name = request.POST["city"].lower()
url = f"http://api.openweathermap.org/data/2.5/forecast?q={city_name}&appid={api_key}"
w_dataset = requests.get(url).json()
try:
context = {
####
"city_name":w_dataset["city"]["name"],
"city_country":w_dataset["city"]["country"],
"wind":w_dataset['list'][0]['wind']['speed'],
"degree":w_dataset['list'][0]['wind']['deg'],
"status":w_dataset['list'][0]['weather'][0]['description'],
"cloud":w_dataset['list'][0]['clouds']['all'],
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'date2':w_dataset['list'][2]["dt_txt"],
'date3':w_dataset['list'][3]["dt_txt"],
Ln 1, Col 1 Spaces: 4 UTF-8 LF Python 3.7.8 64-bit Go Live

Fig: 5

Chapter 5

Conclusion

In this training cum internship we learn HTML,CSS,JAVASCRIPT,BOOTSTRAP,PYTHON and Django and after learning these technology we made a project using these technology names as weather forecasting project. While developing the system a conscious effort has been made to create and develop a software package,making use ofaviliable tools,techniques and resources-that would generate a proper system for cases.Weather forecasts are increasingly accurate and useful, and benefits extended widely across the economy.

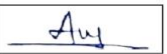
Appendices

APPENDIX:

First FPR-:

FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

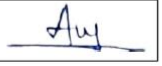
Name of student	Shubham Puri		Department	Computer Science	
Industry/Organization	Indvibe Infotech Pvt. Ltd.		Date/Duration	28/01/22-28/05/22	
Criterion	**Poor**	**Average**	**Good**	**Very Good**	**Excellent**
Punctuality/Timely completion of assigned work			✓		
Learning capacity/Knowledge up gradation			✓		
Performance/Quality of work			✓		
Behaviour/Discipline/Team work				✓	
Sincerity/Hard work			✓		
Comment on nature of work done/Area/Topic	Good problem solving ability. ✓				
OVERALL GRADE (Any one)	**POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT**				
Name of Industry Mentor	Mr. Vishal Verma				
Signature of Industry Mentor					

Receiving Date	11/02/22	**Name of Faculty Mentor**	Mr. Amit Kumar Manjhvar	**Sign**	

Second FPR-:

FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

Name of student	Shubham Puri		Department	Computer Science	
Industry/Organization	Indvibe Infotech Pvt. Ltd.		Date/Duration	28/01/22 - 28/05/22	
Criterion	**Poor**	**Average**	**Good**	**Very Good**	**Excellent**
Punctuality/Timely completion of assigned work				✓	
Learning capacity/Knowledge up gradation				✓	
Performance/Quality of work					✓
Behaviour/Discipline/Team work				✓	
Sincerity/Hard work					✓
Comment on nature of work done/Area/Topic	Control over programming concepts is fine enough but more time to fully grasp the concepts and use it efficiently. Problem understanding is good. ✓				
OVERALL GRADE (Any one)	**POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT**				
Name of Industry Mentor	Mr. Vishal Verma				
Signature of Industry Mentor					

Receiving Date	28/02/22	**Name of Faculty Mentor**	Mr. Amit Kumar Manjwar	**Sign**	

Third FPR-:

FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

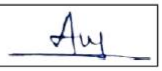
Name of student	Shubham Puri		Department	Computer Science	
Industry/Organization	Indvibe Infotech Pvt. Ltd.		Date/Duration	28/01/22 - 28/05/22	
Criterion	**Poor**	**Average**	**Good**	**Very Good**	**Excellent**
Punctuality/Timely completion of assigned work				✓	
Learning capacity/Knowledge up gradation					✓
Performance/Quality of work					✓
Behaviour/Discipline/Team work					✓
Sincerity/Hard work					✓
Comment on nature of work done/Area/Topic	Good problem solving skills and positive attitude towards work. Control over programming concepts is fine. ✓				
OVERALL GRADE (Any one)	**POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT**				
Name of Industry Mentor	Mr. Vishal Verma				
Signature of Industry Mentor					

Receiving Date	16/03/22	**Name of Faculty Mentor**	Mr. Amit Kumar Manjwar	**Sign**	

Fourth FPR-:

FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

Name of student	Shubham Puri		Department	Computer Science	
Industry/Organization	Indvibe Infotech Pvt. Ltd.		Date/Duration	28/01/22-28/05/22	
Criterion	**Poor**	**Average**	**Good**	**Very Good**	**Excellent**
Punctuality/Timely completion of assigned work					✓
Learning capacity/Knowledge up gradation				✓	
Performance/Quality of work					✓
Behaviour/Discipline/Team work					✓
Sincerity/Hard work					✓
Comment on nature of work done/Area/Topic	Good problem solving skills and good at work control over concepts . ✓				
OVERALL GRADE (Any one)	**POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT**				
Name of Industry Mentor	Mr. Vishal Verma				
Signature of Industry Mentor					

Receiving Date	13/04/22	**Name of Faculty Mentor**	Mr. Amit Kumar Manjwar	**Sign**	

Fifth FPR-:

FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

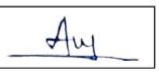
Name of student	Shubham Puri		Department	Computer Science	
Industry/Organization	Indvibe Infotech Pvt. Ltd.		Date/Duration	28/01/22-28/05/22	
Criterion	**Poor**	**Average**	**Good**	**Very Good**	**Excellent**
Punctuality/Timely completion of assigned work					✓
Learning capacity/Knowledge up gradation					✓
Performance/Quality of work					✓
Behaviour/Discipline/Team work					✓
Sincerity/Hard work					✓
Comment on nature of work done/Area/Topic	Positive attitude towards work. Very good at programming concepts. ✓				
OVERALL GRADE (Any one)	**POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT**				
Name of Industry Mentor	Mr. Vishal Verma				
Signature of Industry Mentor					

Receiving Date	13/04/22	**Name of Faculty Mentor**	Mr. Amit Kumar Manjwar	**Sign**	

Sixth FPR-:

FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

Name of student	Shubham Puri		Department	Computer Science	
Industry/Organization	Indvibe Infotech Pvt. Ltd.		Date/Duration	28/01/22-28/05/22	
Criterion	**Poor**	**Average**	**Good**	**Very Good**	**Excellent**
Punctuality/Timely completion of assigned work				✓	
Learning capacity/Knowledge up gradation					✓
Performance/Quality of work				✓	
Behaviour/Discipline/Team work					✓
Sincerity/Hard work					✓
Comment on nature of work done/Area/Topic	Good Problem Solving Skills and have enough command on programmig. ✓				
OVERALL GRADE (Any one)	**POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT**				
Name of Industry Mentor	Mr. Vishal Verma				
Signature of Industry Mentor					

Receiving Date	15/05/22	**Name of Faculty Mentor**	Mr. Amit Kumar Manjwar	**Sign**	

Seventh FPR:-

FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

Name of student	Shubham Puri		Department	Computer Science	
Industry/Organization	Indvibe Infotech Pvt. Ltd.		Date/Duration	28/01/22-28/05/22	
Criterion	**Poor**	**Average**	**Good**	**Very Good**	**Excellent**
Punctuality/Timely completion of assigned work					✓
Learning capacity/Knowledge up gradation					✓
Performance/Quality of work					✓
Behaviour/Discipline/Team work					✓
Sincerity/Hard work					✓
Comment on nature of work done/Area/Topic	Control over programming concepts is fine. The usability of the concepts is efficiently. Problem understamding is good. ✓				
OVERALL GRADE (Any one)	**POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT**				
Name of Industry Mentor	Mr. Vishal Verma				
Signature of Industry Mentor					

Receiving Date	19/05/22	**Name of Faculty Mentor**	Mr. Amit Kumar Manjwar	**Sign**