

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI-590 018**



Mini-Project Report on
“Live Weather Forecast Analysis”

Submitted in partial fulfillment of the requirements for the degree of
Master of Computer Applications
of Visvesvaraya Technological University, Belagavi

by

Pavan S
(1RN20MC035)
Nandan Jayanth Hegde
(1RN20MC031)

Under the guidance of

Mrs. Roopa H M
Assistant Professor
Department of MCA



Estd : 2001

Department of Master of Computer Applications
RNS INSTITUTE OF TECHNOLOGY

Dr. Vishnuvardhan Road, Channasandra, Bengaluru – 560 098

2022

RNS INSTITUTE OF TECHNOLOGY

Dr. Vishnuvardhan Road, Channasandra, Bengaluru – 560 098

Department of Master of Computer Applications



Estd: 2001

CERTIFICATE

This is to certify that the Mini-Project work entitled “**Live Weather Forecast Analysis**” has been successfully carried out by **Pavan S** and **Nandan Jayanth Hegde** bearing USN **1R20MC035** and **1RN20MC031**, bonafide student of **RNS Institute of Technology**, in partial fulfillment of the requirements for award of degree of **Master of Computer Applications** of **Visvesvaraya Technological University, Belagavi**, during the year **2021-22**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in this report. The Internship report has been approved as it satisfies the academic requirements for the said degree.

Mrs. Roopa H M
Project Coordinator
Department of MCA
RNSIT, Bengaluru.

Dr. N P Kavya
Head of Department
Department of MCA
RNSIT, Bengaluru.

External Viva

Name of Examiners

1.

2.

Signature with Date

DECLARATION

We, **Pavan S** and **Nandan Jayanth Hegde** student of 3rd MCA, RNS Institute of Technology, bearing **1R20MC035** and **1RN20MC031** hereby declare that the project entitled “**Live Weather Forecast Analysis**” has been carried out by me under the supervision of Project Coordinator **Mrs. Roopa H M**, Assistant Professor, Department of MCA and submitted in partial fulfillment of the requirements for the award of the Degree of Master of Computer Applications by the Visvesvaraya Technological University during the academic year 2021-22. This report has not been submitted to any other Organization/University for any award of degree or certificate.

Name:

USN:

Signature of the candidates

ACKNOWLEDGEMENT

The successful completion of Mini-Project work depends on the co-operation and help of many people, other than those who directly execute the work. I take this opportunity to acknowledge for the help received for valuable assistance and cooperation from many sources.

Our institution has played a paramount role in guiding us in right direction. I would like to profoundly thank the Management of RNS Institute of Technology for providing such healthy environment for successful completion of this project work.

I express my sincere words of gratitude to our Chairman **Sri Dr. R N Shetty**, for creating an academic environment to brighten our career.

I would also like to thank our beloved Principal, **Dr. M K Venkatesha**, for providing the necessary facilities to carry out this work.

I am extremely grateful to our beloved HoD, **Dr. N P Kavya**, for having accepted to patronize me in the right direction with all her wisdom.

I would also express my heartfelt thanks to our Project Coordinator **Mrs. Roopa H M**, Assistant Professor, Department of MCA for her constant guidance and devoted support.

.

Name:

USN:

ABSTRACT

As we all know India is a land of agriculture. And most of the crops will grow with the help of rain. To harvest that crops according to the weather conditions these datasets will be used very much. Not only in the field of agriculture weather data will be used in almost all the sectors of the world. It might be Trade, it might be Shipping, it might be traveling sector. what not. you name it weather data have the high impact on the sector.

This project aims at extracting dataset from the Tomorrow.io weather API and perform some statistics, data analysis and visualization.

In this work we are include modules like Pandas, seaborn, Requests.

Weather data analysis tracks not only gives Current weather data of the selected area it also provides information and accurate data on future weather.

TABLE OF CONTENTS

Chapter Name	Page No
Declaration	i
Acknowledgement	ii
Abstract	iii
Table of contents	iv
List of Tables	v
List of Figures	vi
CHAPTERS	
1. INTRODUCTION	01
1.1. Project Overview	01
1.2. Data Collection	01
2. LITERATURE SURVEY	04
2.1. Library/Module Requirements	04
2.2. Hardware & Software Requirements	05
2.3. Tools/ Languages/ Platform	06
3. DATA CLEANING AND WRANGLING MECHANISMS	07
4. DATA ANALYSIS AND VISUALIZATION	09
5. CONCLUSION	13
REFERENCES	14

LIST OF TABLES

Table No.	Name	Page No.
Table 1.1	Data Fields	03
Table 2.1	Hardware-Requirements	05
Table 2.2	Software-Requirements	05

LIST OF FIGURES

Figure No.	Name	Page No.
Fig. 1.1	Loading the Data	02
Fig. 1.2	Data Set	03
Fig. 3.1	manipulating and adding datetime	07
Fig. 3.2	Updating Weather Code	07
Fig. 3.3	Data Set after Cleaning	08
Fig. 4.1	Weather Condition Count	09
Fig. 4.2	Weather Between date and time	09
Fig. 4.3	Raining Hours	10
Fig. 4.4	Total Rain fall in a day	10
Fig. 4.5	Weather Condition	11
Fig. 4.6	Rain Intensity	11
Fig. 4.7	Temperature on a Day	12
Fig. 4.8	Humidity vs Temperature	12
Fig. 4.9	Wind direction and wind Speed	12