SBM COLEGE OF ENGINEERING AND TECHNOLOGY

DINDIGUL-624 005

Department of Electronics and Communication Engineering

EXPLORATORY ANALYSIS OF RAINFALL DATA IN INDIA FOR AGRICULTURE

TEAM ID:PNT2022TMID49032

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INTRODUCTION

- Rainfall has been a major concern these days.
- Weather conditions have been changing for time being.
- Rainfall forecasting is important otherwise, it may lead to many disasters.
- Irregular heavy rainfall may lead to the destruction of crops, heavy floods that can cause harm to human life.
- It is important to exactly determine the rainfall for effective use of water resources, crop productivity, and pre-planning of water structures.

CONTENT

- PROBLEM STATEMENT
- PROPOSED SOLUTION
- TECHNICAL ARCHITECTURE
- WORKING DEMO OF THE PROJECT
- PERFORMANCE METRICS
- FUTURE SCOPE

PROBLEM STATEMENT

- ✓ Rainfall is one of the climatological data which is widely
- ✓ Analysis of rainfall data is important

as it facilitates policy decisions regarding the cropping pattern, sowing date, construction of roads and providing drinking water to urban and rural areas.

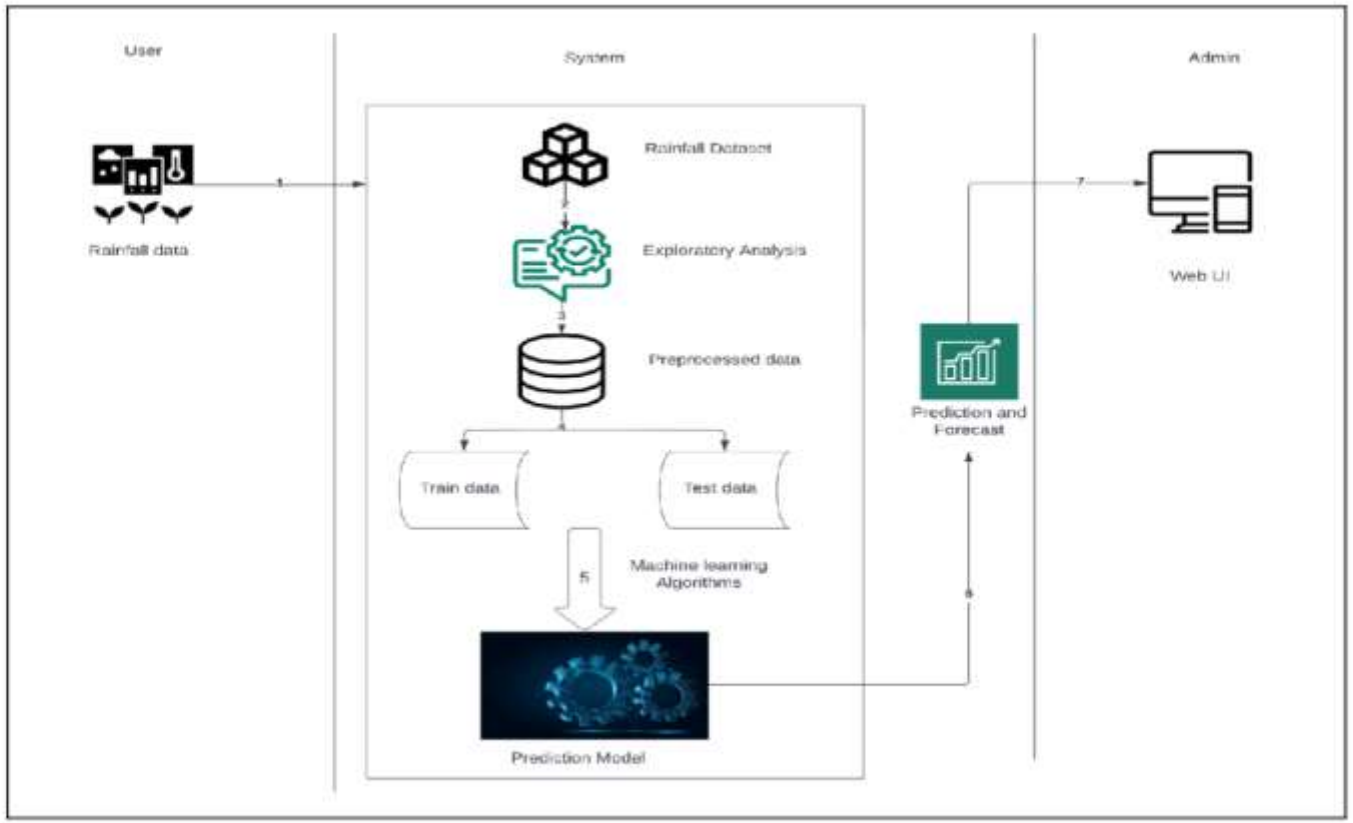
- ✓ The potential impacts of heavy precipitation include crop damage, soil erosion, and an increase in flood risk due to heavy rains (see the River Flooding indicator)—which in turn can lead to injuries, drownings, and other flooding-related effects on health.

PROPOSED SOLUTION

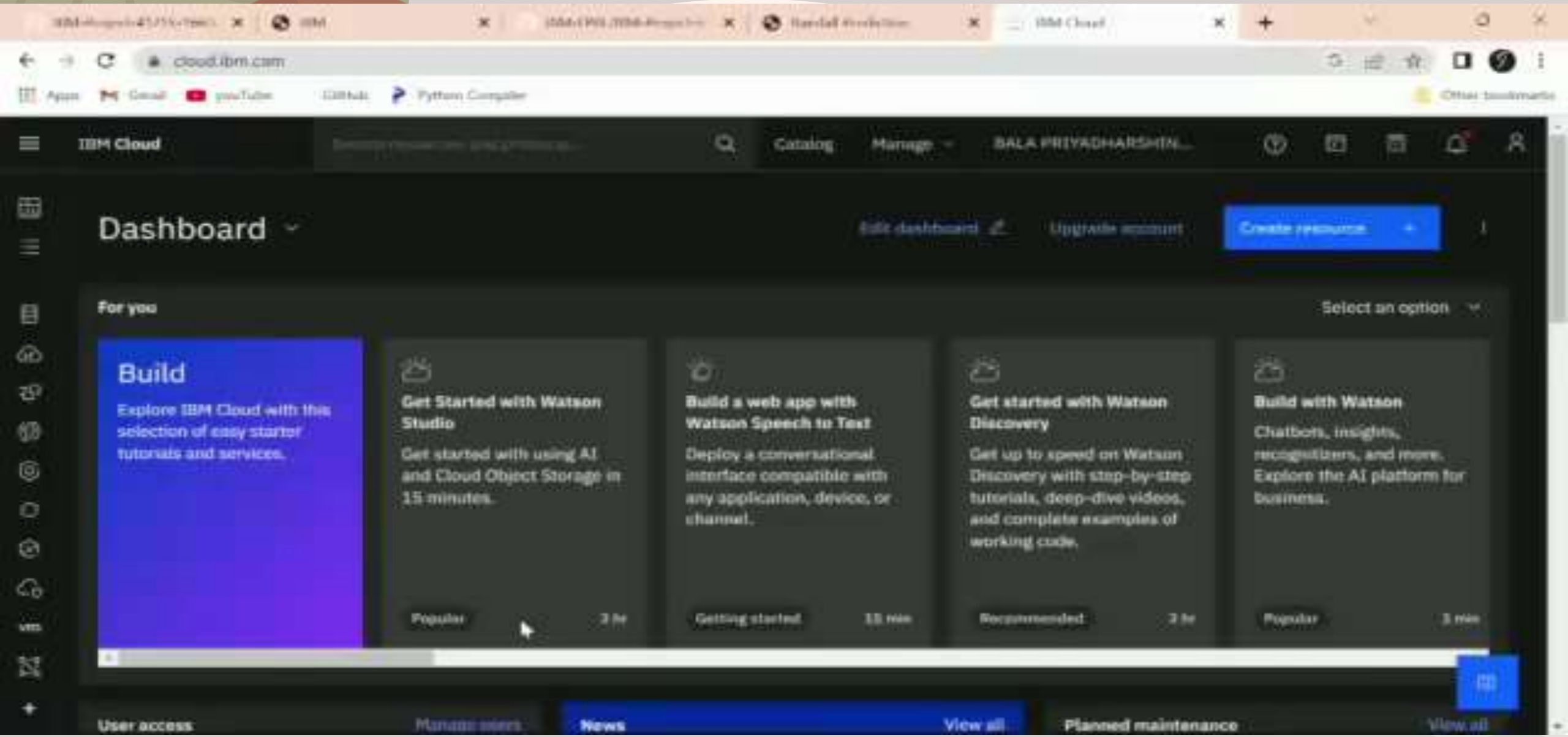
- problem statement(problem to be solved)
- idea/solution description
- Novelty /uniqueness
- Social impact/customer satisfaction
- Business model(revenue model)
- Scalability

TECHNICAL ARCHITECTURE

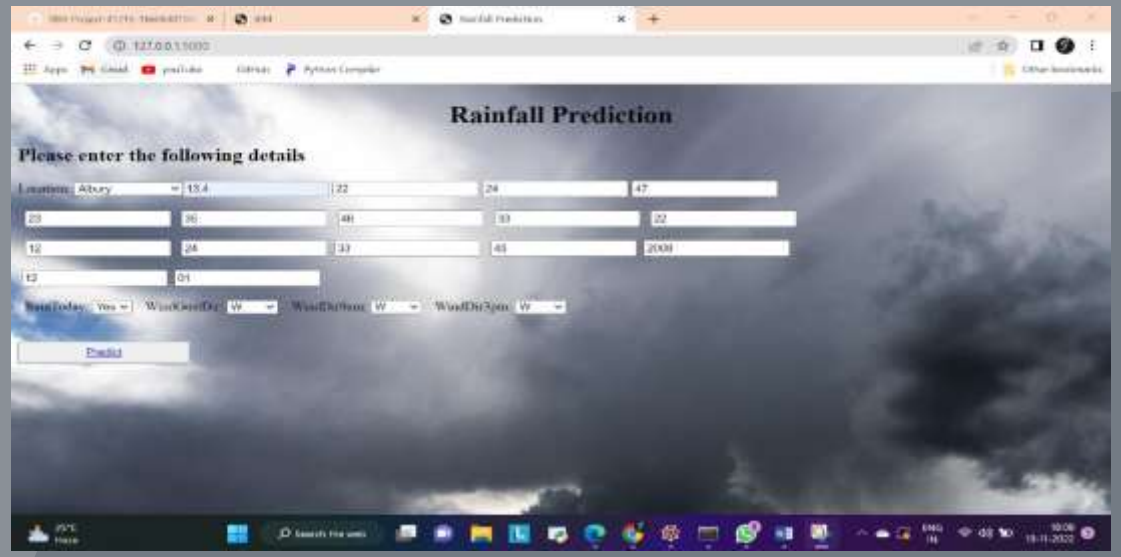
Technical Architecture:

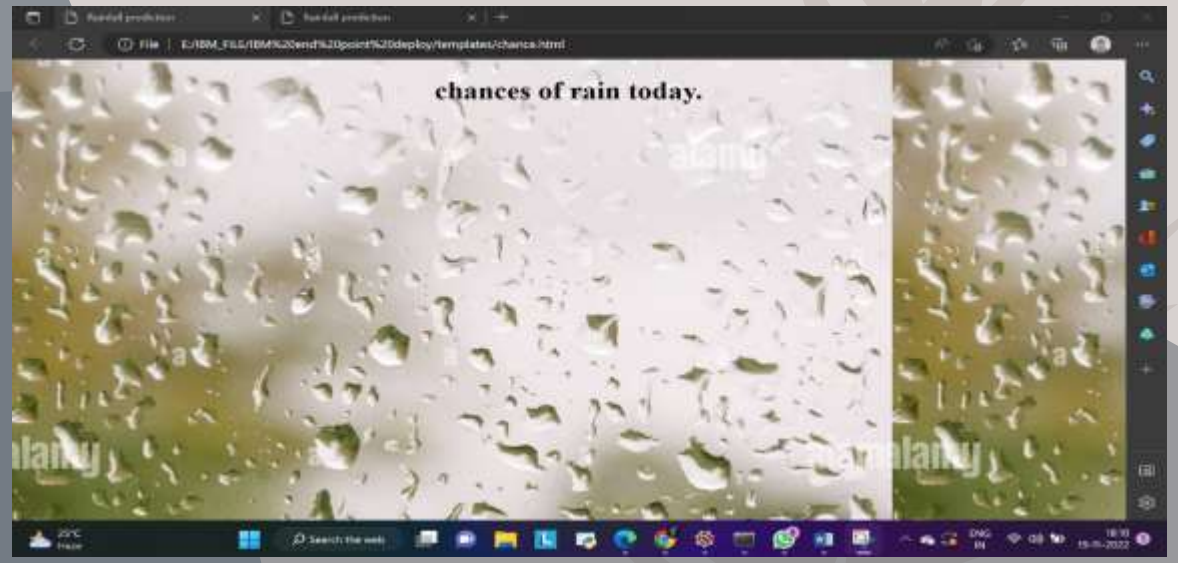


WORKING DEMO OF THE PROJECT



PERFORMANCE METRICS





FUTURE SCOPE

- PREDICTING WEATHER ACCURATELY DOESN'T JUST HELP OUR DAILY LIVES BUT HAS DEEPER IMPACT FOR FOOD SECURITY AND DISASTER MANAGEMENT.
- GOOD NEWS FOR MONSOON-DEPENDENT INDIA IS THAT WE ARE GETTING BETTER AT PREDICTING.
- NEW TECHNOLOGIES, SUCH AS INTERNET OF THINGS (IOT) AND ARTIFICIAL INTELLIGENCE (AI) ARE HELPING METEOROLOGICAL EXPERTS TO GIVE BETTER INFORMATION TO PREDICT AGRICULTURAL OUTPUT AND NATURAL DISASTERS.

GITHUB LINK: https://github.com/IBM-EPBL/IBM-Project-36417-1660294977

THANK YOU