Software Requirement Specification for

Weather forecasting system

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1. Introduction

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, wind speed, and humidity. 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 module provides a basic understanding of the purpose and scope of weather forecasts, the basic principles and the general models developed for forecasting. Introduction: Weather forecasting means the prediction of the weather through the application of the principles of physics, supplemented by a variety of statistical and empirical techniques**.**

1.1 Purpose

Weather forecasting is the application of science and technology to predict the conditions of the atmosphere for a given location and time. People have attempted to predict the weather informally for millennia

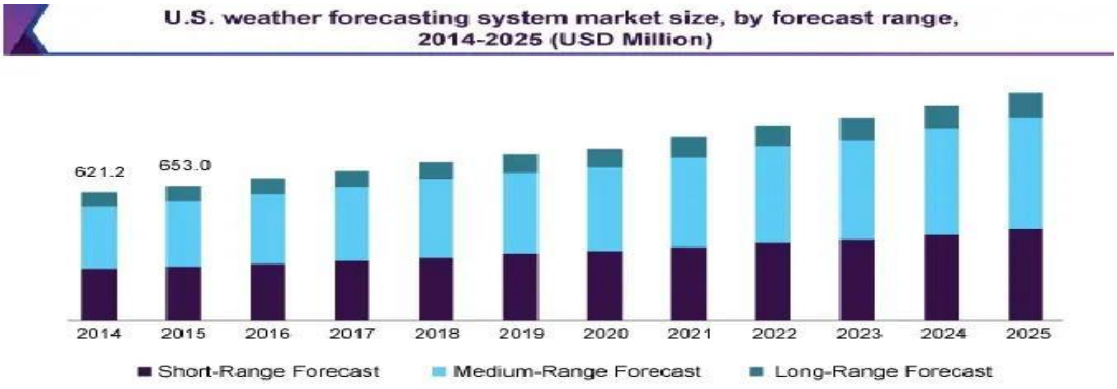
and formally since the 19th century. Weather forecasts are made by collecting quantitative data about the current state of the atmosphere, land, and ocean and using meteorology to project how the atmosphere will change at a given place**.**

1.2 Scope

This comprehensive Weather Forecast System market report provides genuine information of the global market statistics and status. Its scope study expands from market situation to comparative pricing among the chief players, expense of the specific market areas and profits. It represents a comprehensive and in-brief analysis report of the prime competitor and the pricing statistics with a view to aid the beginners establish their place and survive in the market. Furthermore, it also focuses on the overall overview of the market for the upcoming period of 2021 to 2027. This has proved to be of a great help to the entrepreneurs. This in-detail market study is highly based on the information received from interviews with the leading executives, research and innovative resources.

1.3 Overview

The global weather forecasting system and solutions market size was valued at USD 2.51 billion in 2016. It is expected to post a CAGR of 7.1% over the forecast period. These systems help enterprises in gaining real-time insights into atmospheric conditions, which in turn, enables enterprises to carefully plan all weather-sensitive operations to ensure security, sustainability, safety, and cost efficiency. Factors such as growing sea and air transportation, increasing stringency of norms pertaining to environmental protection, and high dependency on rainfall for water supply are among the key trends stimulating market growth.



2. General section

2.1 Problem statement

If it is true, as every scientist believes, that subsequent atmospheric states develop from the preceding ones according to physical law, then it is apparent that the necessary and sufficient conditions for the rational solution of forecasting problems are the following:

1. A sufficiently accurate knowledge of the state of the atmosphere at the initial time.

2. A sufficiently accurate knowledge of the laws according to which one state of the atmosphere develops from another.

2.2 Drawbacks of existing System

Weather forecasting

Advantages	Disadvantages
• Farmers can known when to plant or harvest their crops	• Weather is extremely difficult to forecast correctly
• People cam choose where and when to take their holidays to take advantages of good weather	• It is expensive to monitor-so many variables from so many sources
• Surfers known when large waves are expected	• The computers needed to perform the millions of calculations necessary are expensive
• Regions can be evacuated if hurricanes or floods are expected	• The weather forecasters get blamed if the weather is different from the forecast

2.3 Proposed system

• User registration : Administrator permit user for registration, companies can also do registration.

• Inserting the details : user and companies have to insert their details.

• Updating the details: As time user and companies have to update their details.

• Event Details: Administrator update the weather.

• Recruitment Process: Every 3 hour updating weather.

3. Functional Requirements

3.1 New user requirements

When user want to get advantage of this Application they have to first Register themselves by providing their details.. After completion of registration a User ID and Password will be provided to the user. They can use that id and password for login to application and see the weather detail.

3.2 User log in

A registered user can login to the system by using his User ID and Password provided after registration. After Successful login Home page is shown. In home page user can see details and see the weather location to give system**.**

3.3 Searching

User can search company by,

- **Technology**
- **Location**

4. Updating Schedule details :

Administrator will inform the candidates about recruitment process.

5. Providing details of phase of Recruitment process for each company

6. Interview details:

By mail selected candidates will be informed schedule of interview.

7. Updating details :

After some time users have to update their details.

4. Interface requirements

User Interface :

1. This system is used by administrator ,user.

2. user can login after administrator create user account.

3. Administrator upload the details of user can refer.

4. user can mail Administrator**.**

4.1 Graphical User Interface (GUI)

File hepatration and login page will be displayed. After registration and login Home page a o ere walent in which they prete, rewil let de their detail there. Company will have

• There will be a dashboard in which administrator will update the weather details**.**

4.2 Software Interface

- Programming Language: python ,HTML, css
- We used the API

4.3 Communication interface

• This website supports all types of web browsers.

• User will be informed about placement process via uploading dashboard by administrator.

• Selected candidates will be informed for interview via mail by company.

5. Performance requirements

Response Time :

Response time will be less than 1s.

Security: The details of the students will be kept secured by providing password facility and while updating details after OTP validation.

Efficiency: All the details of the students will be kept updated.

6. Design Constraints

• Software must be flexible so that user can easily update their details and can easily go through placement process.

• The system must be able to manage the details of the users very efficiently.

• Using this system placement process can be carry out from any where so that this application is also useful in pandemic situations like corona.

• All the users have provided their important details so that software must provide the security of their data.

7. Non Functional Requirements

1. Security Requirements :

Every Login Time Verification by OTP. OTP and password verification while updating details.

2. Database Requirements:

To store, maintain and access details of the thousands of students and also companies.

3. Performance Requirements:

Sorting facilities for quick access.

8. preliminary schedule and budget

• We gave 1 month to discuss about software, cost, deadlines, risk analysis etc.

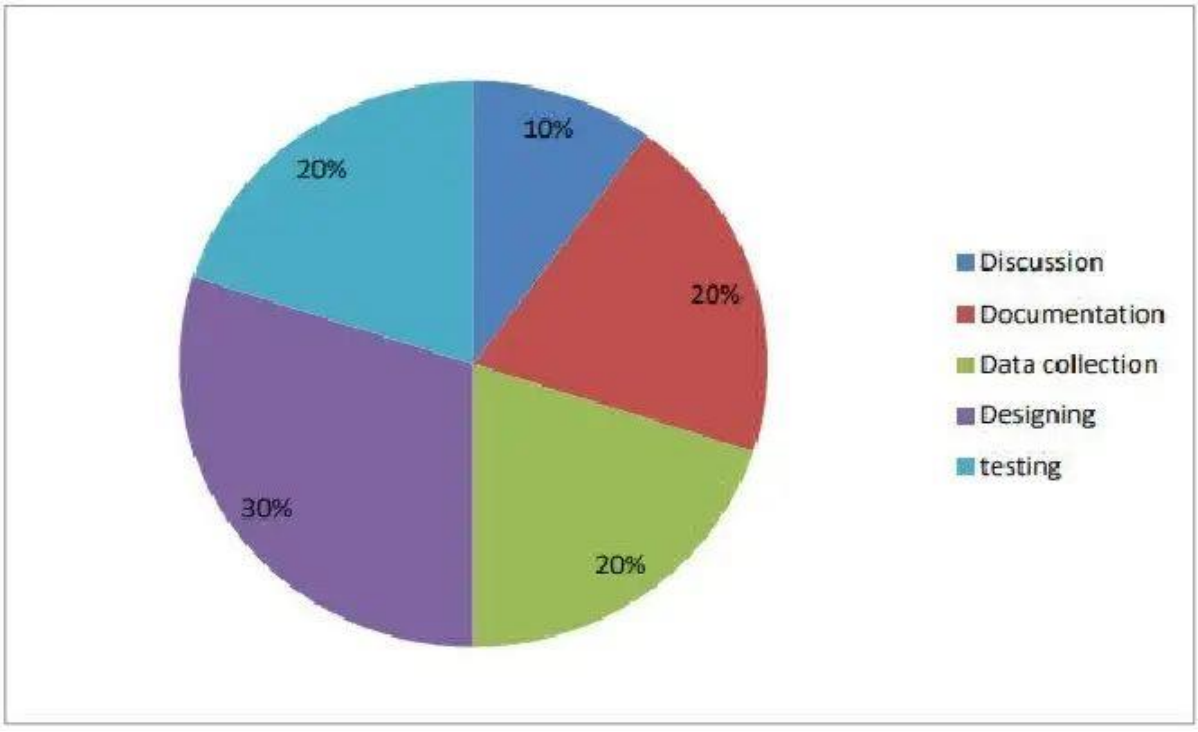
• 2 month for requirement gathering from user and then by analyzing that we made SRS document and verified that from user.

• 2 months for Data collection like details of different companies which wanted to involve.

• 3 months to Design software according to user requirements and.

• 2 months for implementation and testing for final product.

• The budget will depends on the teams that which resources they are going to use like database, Reviews of the experts and risk analyzers may increase cost.



11. Appendices

This software will make easy to analyse weather .

also user show weather anytime and anywhere.

Reference:

https://www.bing.com/search?q=weather+forecasting+system+preliminary+schedule+and+budget&qs=n&form=QBRE&msbsrank=0_0_0