VIDYODAYA SCHOOL

(An ISO 9001:2015 Certified School)
THEVAKKAL, KOCHI – 21

ALL INDIA SENIOR SECONDARY SCHOOL EXAMINATION

RECORD OF PROJECT WORK IN INFORMATICS PRACTICES

Certified that this is the bona-fide record of project work in Informatics Practices by...Prathish KA.....

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Reg no:

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submitted for practical examination in Informatics Practices Practical in the year 2021-22, Vidyodaya School, Thevakkal

Teacher-in-charge | Principal | Examiner

Acknowledgement

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About Python

Python is a widely-used, interpreted, object-oriented, and high-level programming language with dynamic semantics, used for general-purpose programming. It was created by Guido van Rossum, and first released on February 20, 1991.

Python is an interpreted, object-oriented, high-level programming language with dynamic semantics. Python's simple, easy to learn syntax emphasizes readability and therefore reduces the cost of program maintenance. Python supports modules and packages, which encourages program modularity and code reuse.

Python goals

In 1999, Guido van Rossum defined his goals for Python:

- an **easy and intuitive** language just as **powerful** as those of the major competitors;
- **open source**, so anyone can contribute to its development;
- code that is as understandable as **plain English**;

- suitable **for everyday tasks**, allowing for short development times

About the project

Our project ‘Different types of seasons in India’ gives an idea about the Climate of India by comparing it with various other factors like temperature, rainfall, time period and different states.

The four seasons of India are Summer Season, Winter Season, Rainy Season and Spring Season. Our country faces different phases of climate changes during each season. The Sunny Summer Season tests our patience with the beating heat. The chill Rainy Season is enjoyable with the non stop rains. The pleasant Winter Season induces us to go for a tour. The joy giving Spring Season is the happiest month for the farmers. The weather and climate in each season affects people both positive and negative ways. Still, people welcome each season for its own advantages and get ready to face the drawbacks of each season.

In this project the data can be modified by adding or deleting the data according to the latest updates of seasons.

MENU 1:

Display data frame

It is a two dimensional data structure with rows and columns. Its values and size are mutable and can be changed any time.

MENU 2:

Search by state

Returns the data of states by our choice.

MENU 3:

Modify

Contents can be changed according to our preference.

MENU 4:

Delete

Removes or erase a row or a column from the dataframe.

MENU 5:

Sorting in ascending order of states

States will be displayed in ascending order by temperature.

MENU 6:

Sorting in descending order of rainfall

States will be displayed in descending order by rainfall.

MENU 7:

Display seasons

The table seasons will be displayed as a whole.

MENU 8:

Display season, time period , rainfall of first 5 states

Season, time period, states of first 5 crops using head function

MENU 9:

Display states

The table states will be displayed.

MENU 10:

Plotting seasons based on temperature as bar graph

MENU 11:

Plotting seasons based on rainfall as histogram

MENU 12:

Display alternative record

The whole record will be displayed alternatively using loc function

MENU 13:

Display temperature and rainfall of seasons

MENU 14:

Display seasons, time period, temperature of last 3 states

MENU 15:

Plotting seasons based on rainfall and temperature on line graph