

DATA PREDICTION AND PLOTTING USING PYTHON

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CONTENT

- ! Introduction
- ! About Our Project
- ! Prediction And Plotting Modes
- ! Generation Of Code
- ! Technical Specifications
- ! Software Design
- ! Images of Working Interface and Application

INTRODUCTION

PROBLEM STATEMENT

- Project focuses on the problems faced by the small scale businessmen.
- Aim of the project is to predict and plot the data as per the datasets provided.
- Also helps to monitor and analyse sales on different scale.

ABOUT OUR PROJECT

- ! This project is made on Python 3.6.
- ! It has GUI-based interface made using Tkinter.
- ! Prediction is done on the basis of previous data using Annual Growth Rate Method.
- ! Application developed in this project can also be used for plotting data.
- ! Plotting of graph is done on Pie-charts and Bar-graphs.
- ! External Libraries used are : numpy and matplotlib

PREDICTION METHOD

- The prediction is being done on Annual Growth Rate Method
- Predicted values are being generated for:
 1. Year wise Value
 2. Month wise Value

TYPES OF PLOTS

BAR GRAPH

Plotting of Bar-graph is done on the basis of following criteria :

- ! A particular car sold in a particular month of all years.
- ! All cars sold in all months of a particular year.
- ! All cars sold in particular month in particular year.

PIE CHART

Plotting of Pie-graph is done on the basis of following criteria :

- ! All cars sold in a particular year.
- ! A particular car sold in all months of a particular year.

TECHNICAL SPECIFICATIONS

! Hardware Requirements

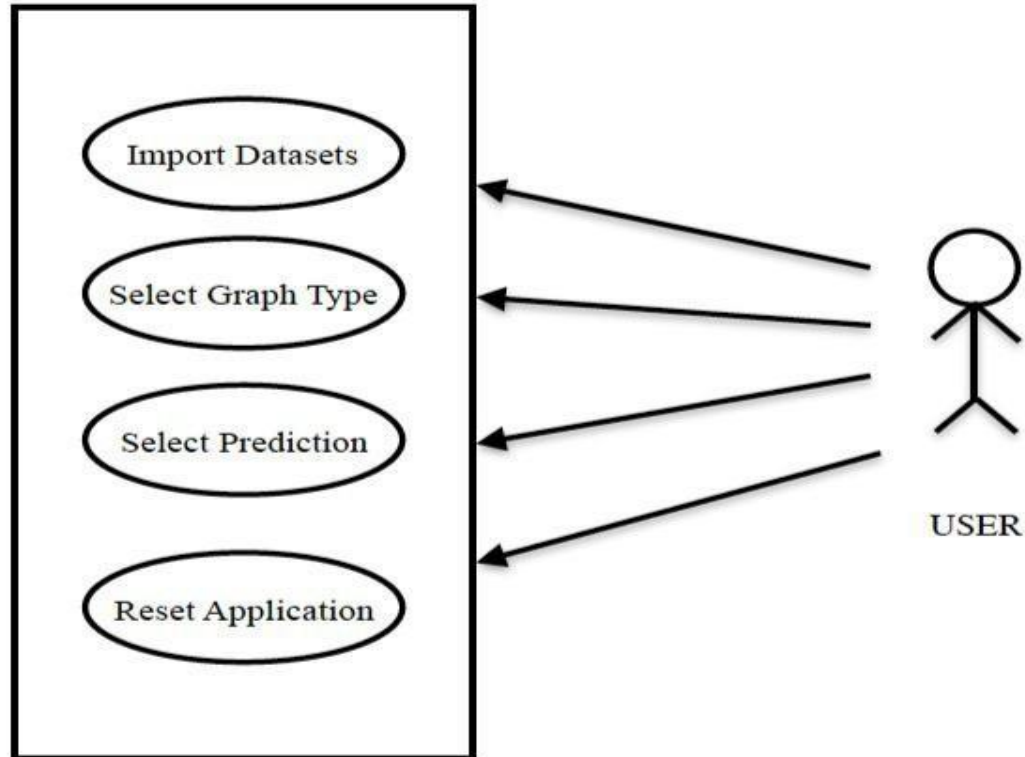
- System with minimum 2GB RAM

! Software Requirements

- Python 3.x
- External libraries : numpy, matplotlib and tkinter.
- Any Spreadsheet Software for CSV files.

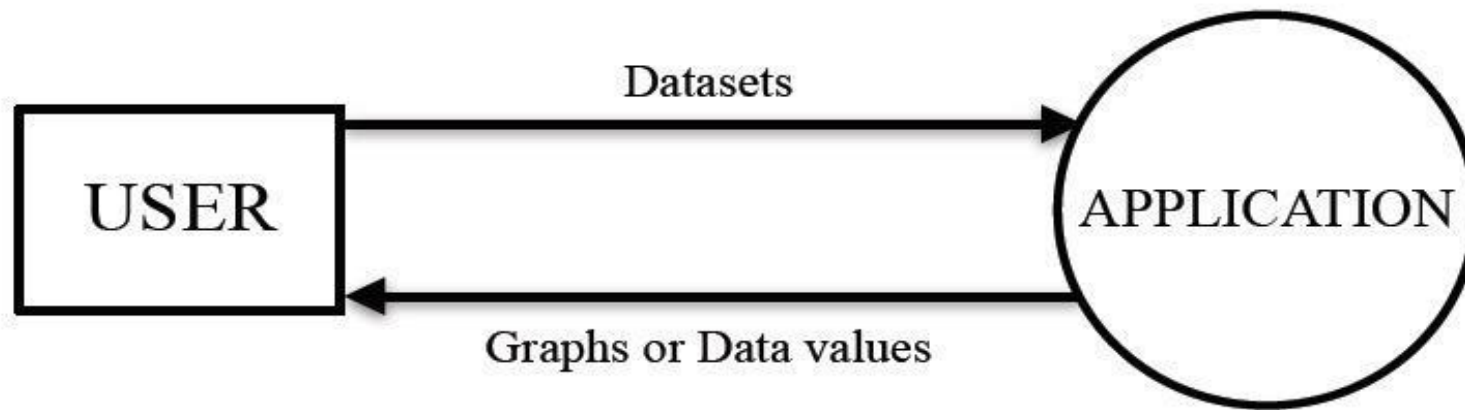
SOFTWARE DESIGN

- USE CASE DIAGRAM

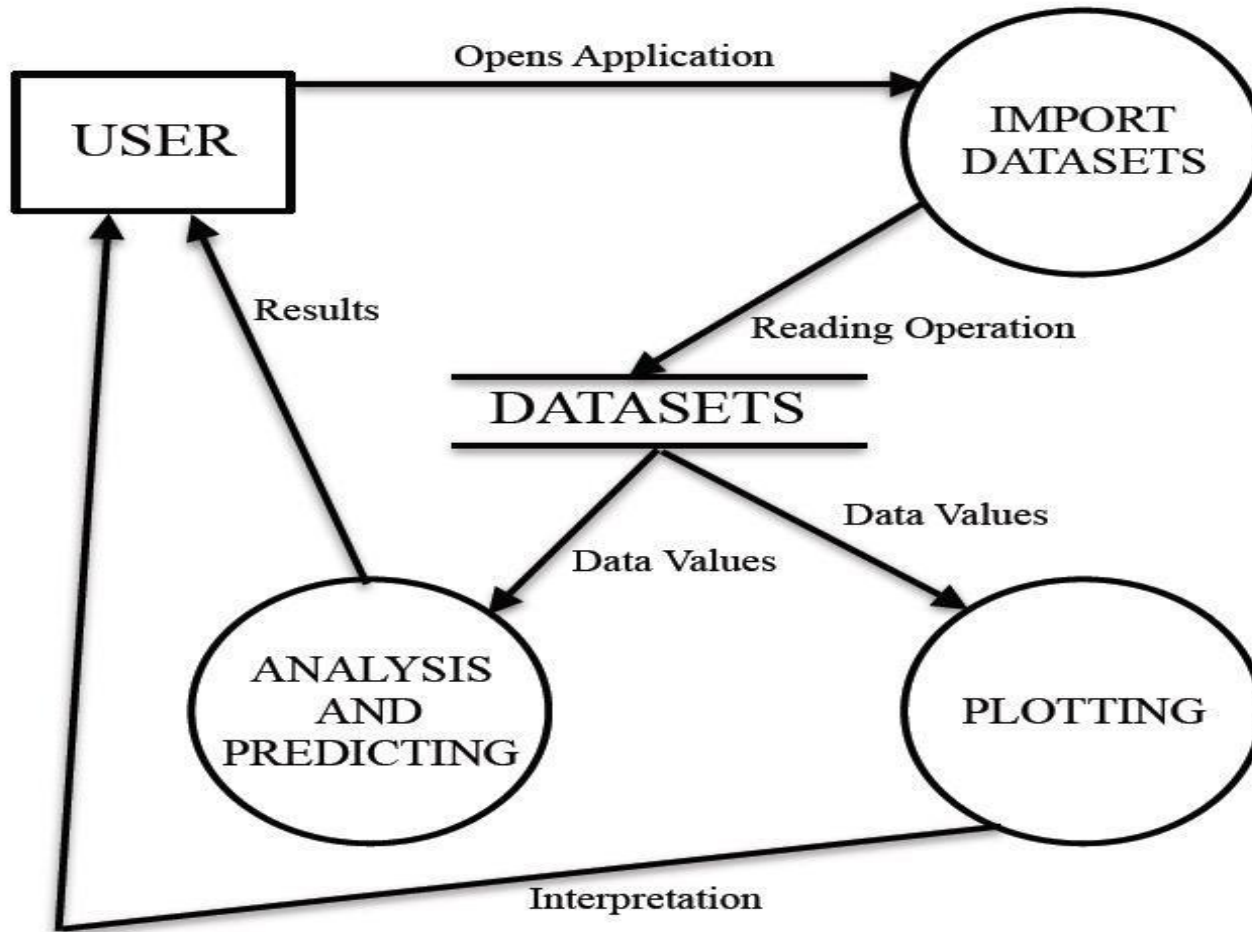


DATA FLOW DIAGRAMS

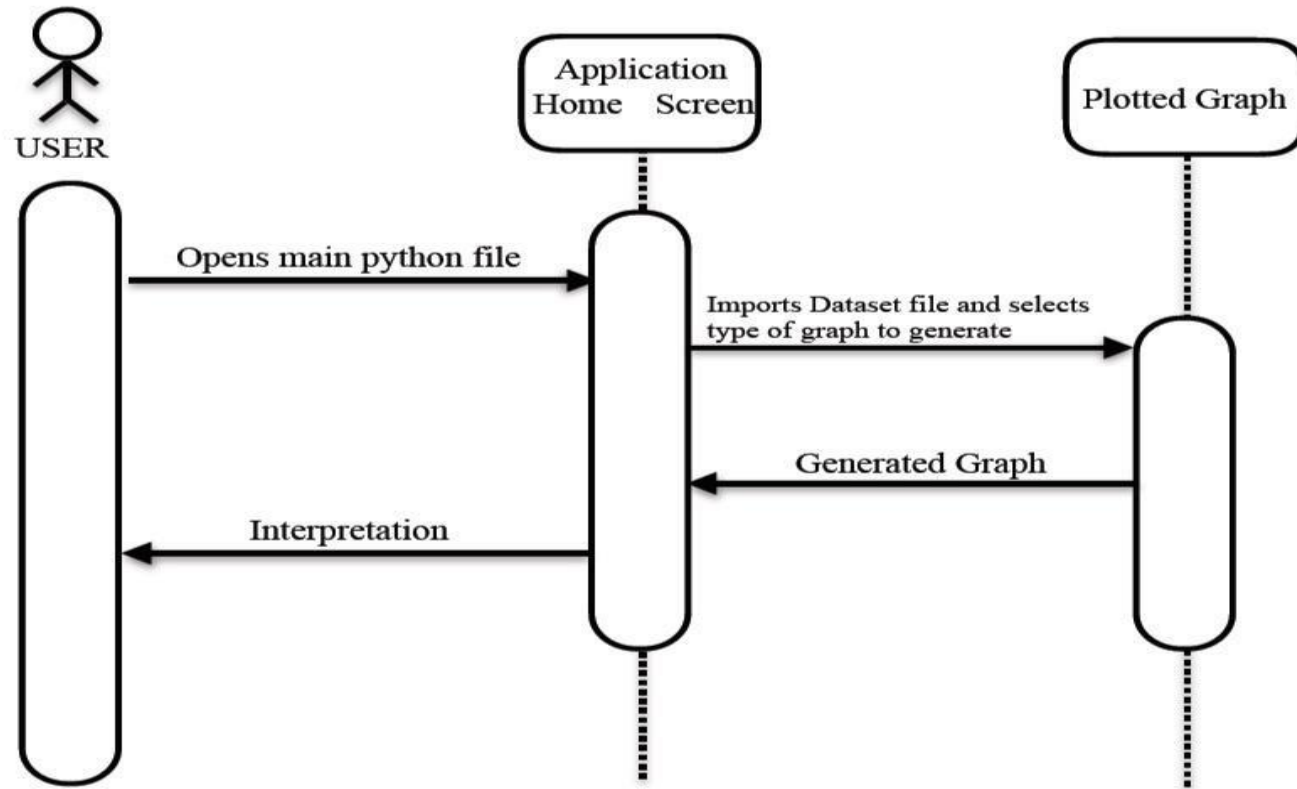
- DFD LEVEL 0



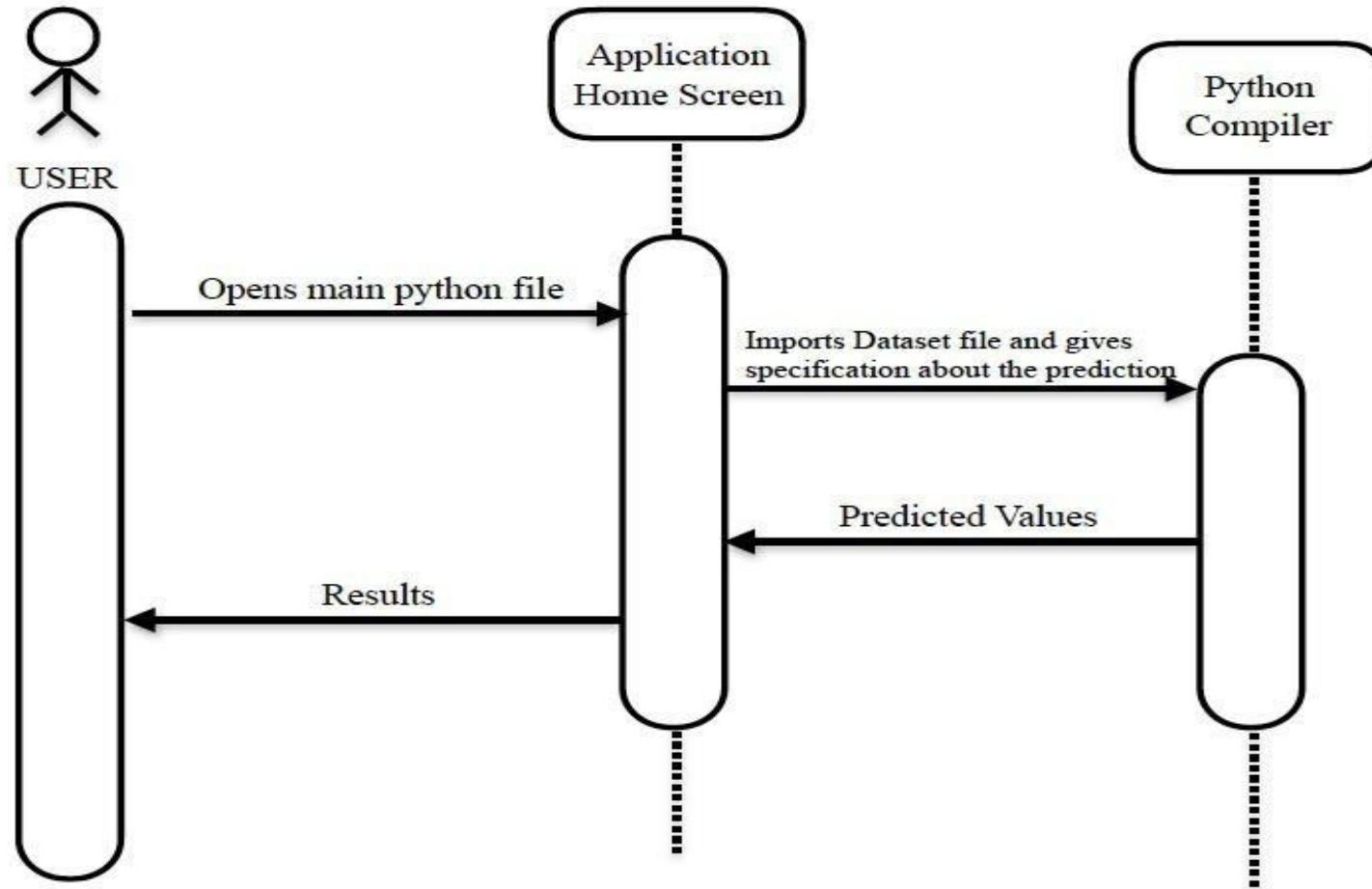
- DFD LEVEL 1



SEQUENCE DIAGRAM FOR PLOTTING

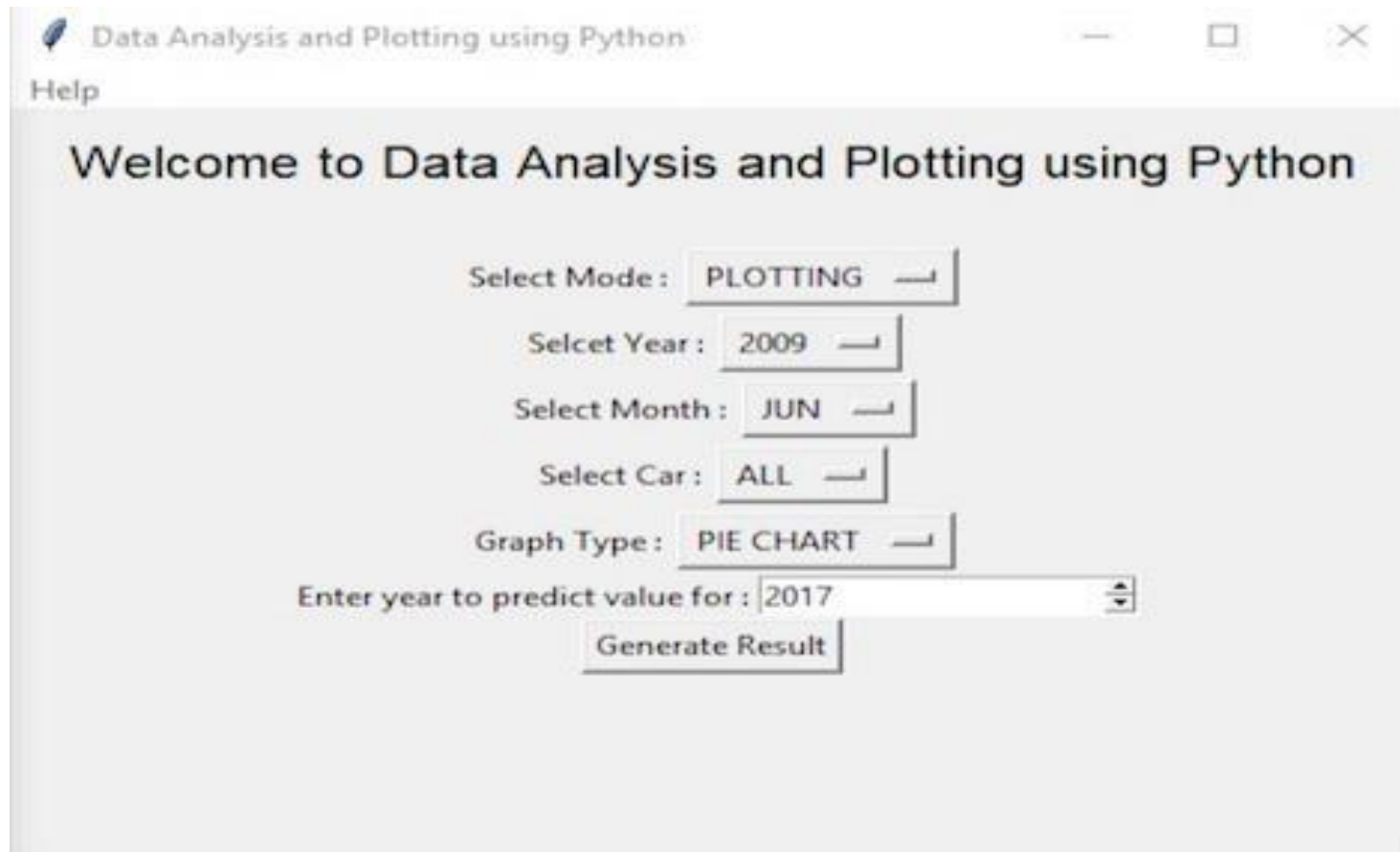


SEQUENCE DIAGRAM FOR ANALYSIS AND PREDICTING



IMAGES OF INTERFACE

HOME SCREEN



The image shows a software window titled "Data Analysis and Plotting using Python" with standard Windows window controls (minimize, maximize, close). Below the title bar is a "Help" button. The main content area displays a welcome message and a series of dropdown menus for configuration. The selected options are: "PLOTTING" for Select Mode, "2009" for Select Year, "JUN" for Select Month, "ALL" for Select Car, and "PIE CHART" for Graph Type. Below these is a text input field for "Enter year to predict value for" with the value "2017" entered. At the bottom is a "Generate Result" button.

Data Analysis and Plotting using Python

Help

Welcome to Data Analysis and Plotting using Python

Select Mode : PLOTTING

Select Year : 2009

Select Month : JUN

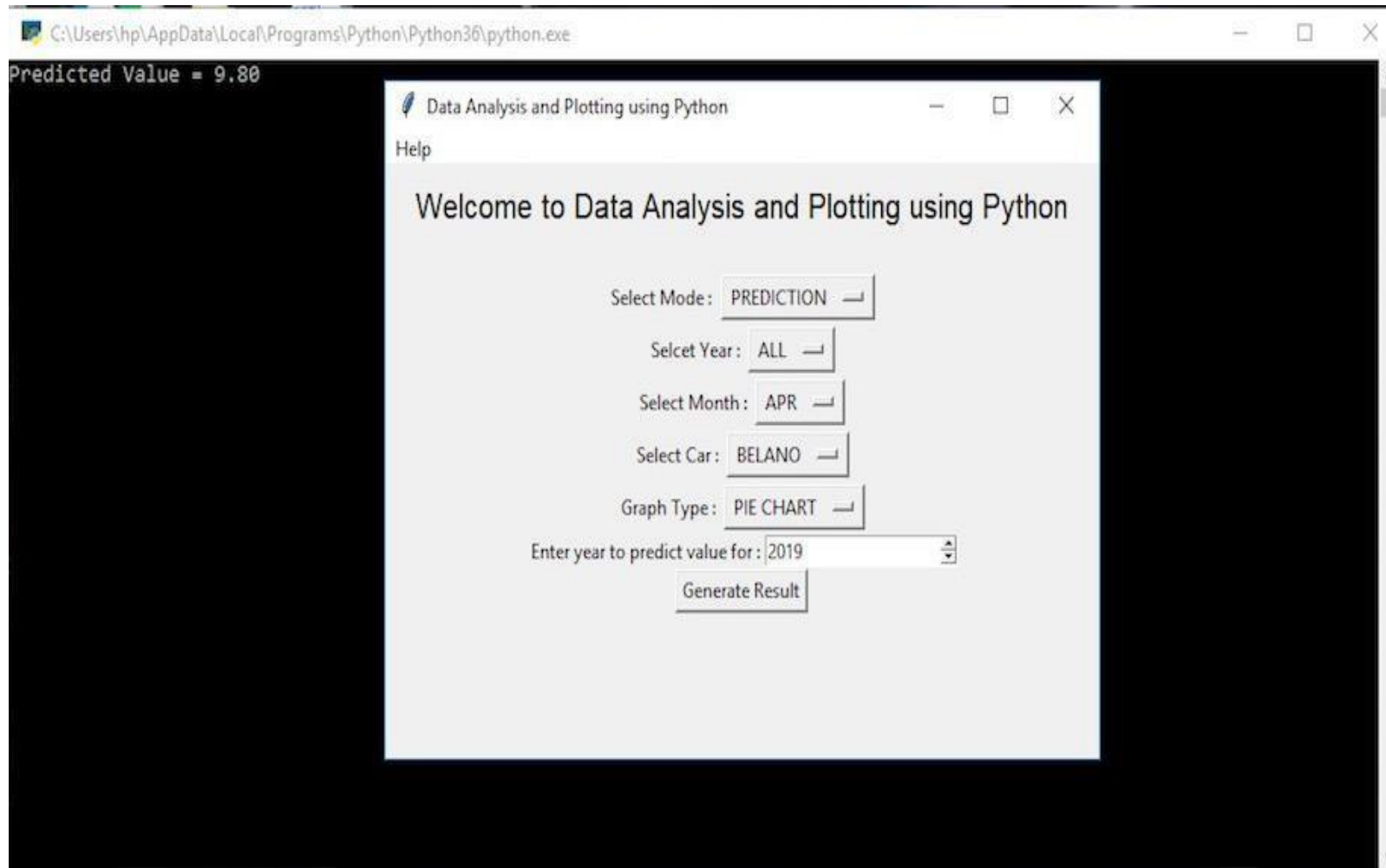
Select Car : ALL

Graph Type : PIE CHART

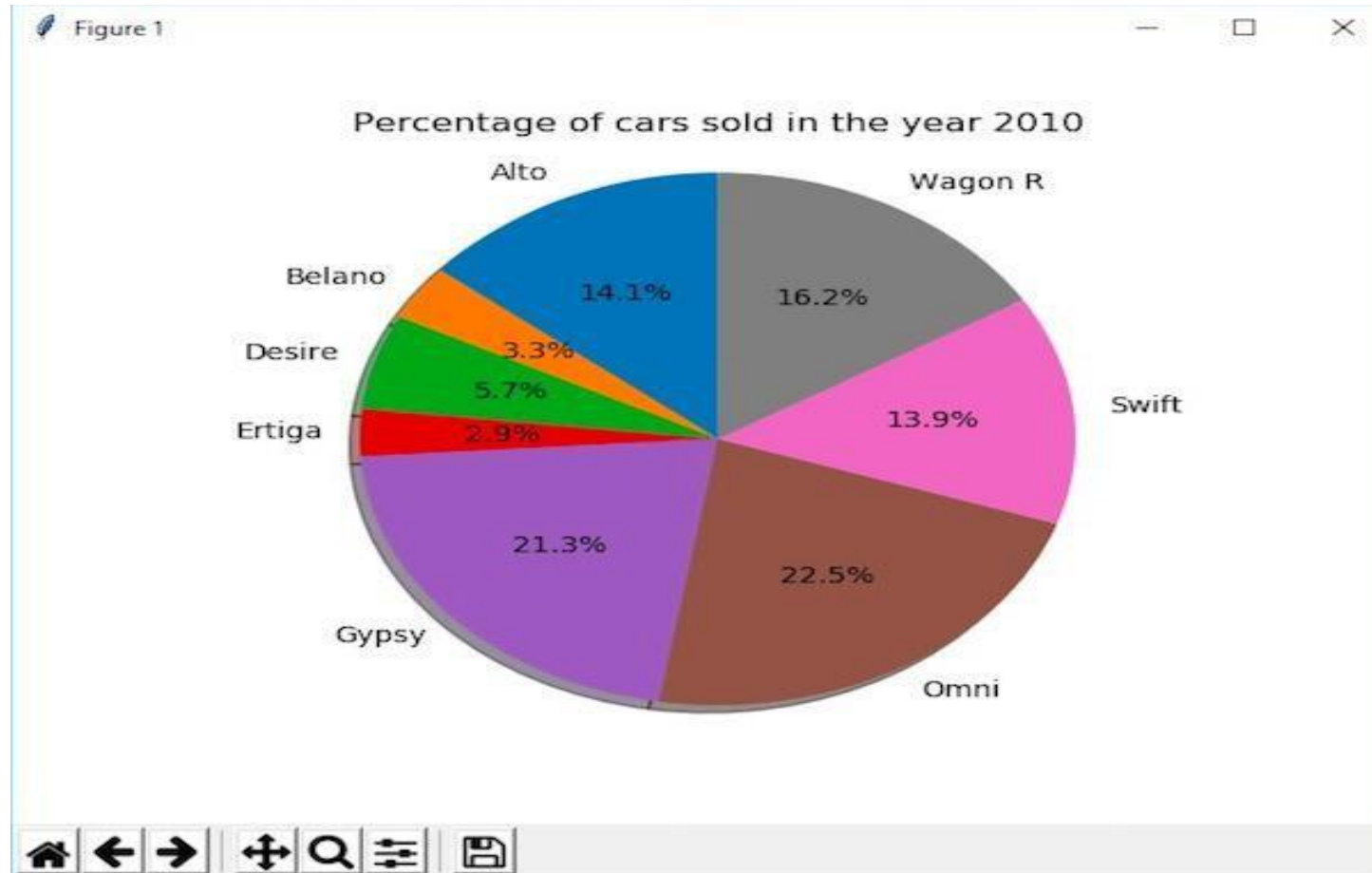
Enter year to predict value for : 2017

Generate Result

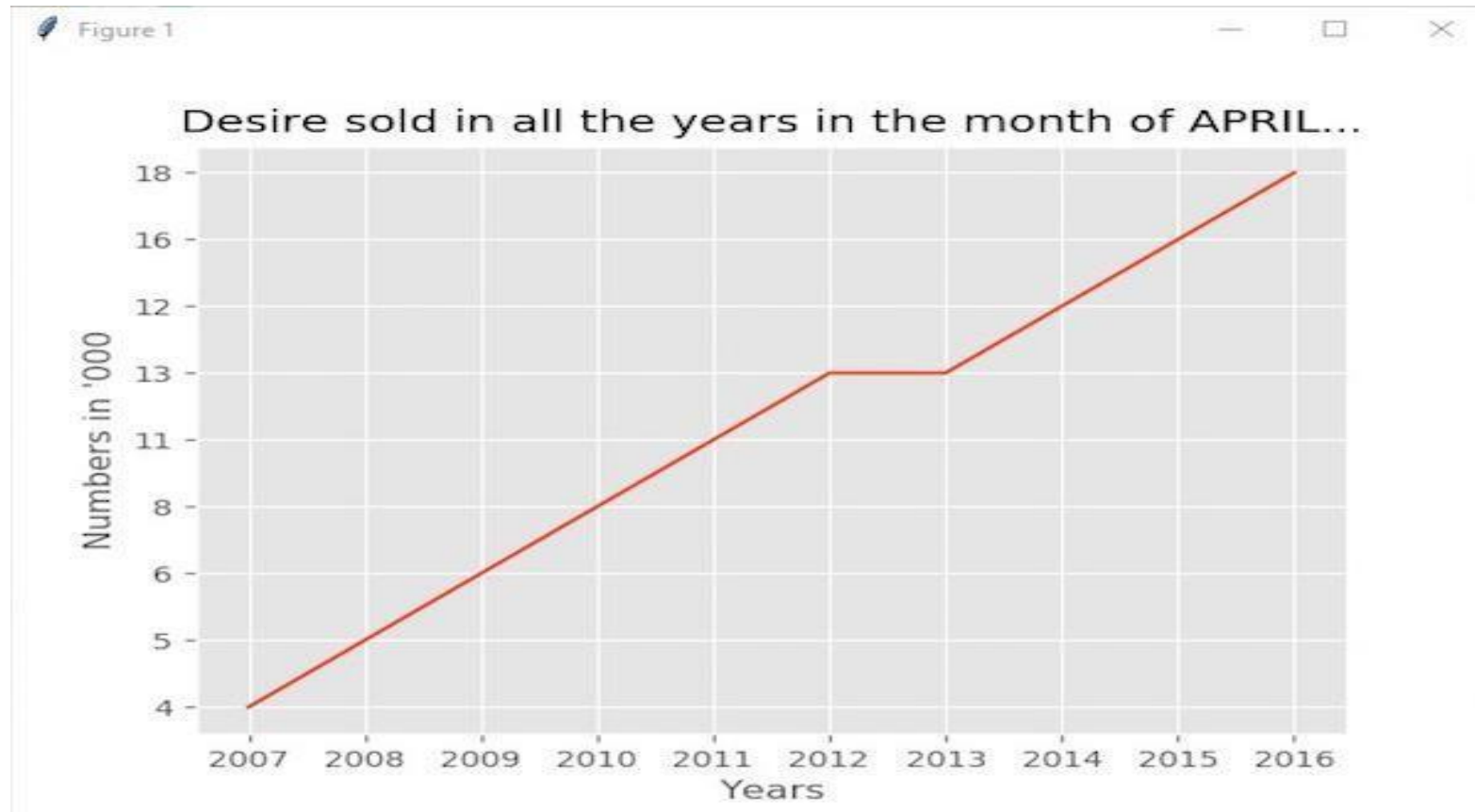
PREDICTION MODE SCREEN



PIE CHART PLOTTING OUTPUT SCREEN:



BAR GRAPH PLOTTING OUTPUT SCREEN:





THANK YOU

Questions Please!!!