Task 10: Use Matplotlib module for plotting in python.

Aim: To visualize and analyze the Sales
performance of three products using line, bour,
and pie charts in python with Matplotlib
Algorithm:

- · Import Matplotlib. pyplot as pet.
- 6 months.
- plot a line chart showing monthly trends calculate total sales and plot a bar chart
- ouse last month's data to plot a pie charl for market Share
- Add titles, labels, legends, and grid lines for clarity.

program:

import matplotlib, pyplot as plt months = [Jan, 'Feb', 'Max, 'Apri', 'May, 'Jun'] product A = [120, 135, 150, 160, 145, 170] product B = [100, 115, 130, 125, 140, 155] product C = [90, 105, 95, 110, 120, 130]

1. Line chart

plt. figure (tigsize = (8,5))

pet. plot (months, product-A, marker = 0, label = product A)

plt. plot (months, product_B, market='5',
label = 'product B')

plt. plot (months, peroduct_c, market = 'A',
tlabel = 'product c')

plt. title ('monthly sales Trend')

output 1. Line chart - Monthly sales trend X-anus: Jan - Jun y-anis: junits. soldand va materia 3 lines: go sind rotes at some all product A (o markers) Product B (markers) product c (a movikers. 170 160 Except on] 150 140 Limit Sold 130 1006 Jan May Feb Apor months 2. Bar chart 800+ 600 400. 200 Product A Product B Product C

pie chart Market Share - June product c 28.6% product B 134.1% (autologuen 3.00pm Topic mondily sales the so have charactering monthly ternais purchasis estate assure and plat a has charit in tast months data to plot as pic clusie for montree shorre Add tilles o levoles o light see o and going luice for clarity simport martiplication, myrhot as just months = [Jan , Feb , mess , April, resy, Jun] module-A=[120/135, 150, 160, 1415, 170] product - B = [100, 115, 130, 125, 140, 155] produit = c = [90, 100, 95, 110, 120, 130] # 1 Line chant M. Jegune (Figsize = 18 the block (months , product A, marker. 'c' lase = product 11) The Most Emonths of who will be a market of Laket - product Bi He Mai Incalle , readering a month of

```
pet. Xlabel ('month')
                                    tout fur out flust
pet. Ylabel ('units sold')
pet, legend ()
                                     which the
pet, grid (True)
                              and whoplas, gas a
plt, Show ()
                         a Backgorowner: Light yellow
                          * that size: 300% 286 / 1600
# 2. Bar chart - Total Sales
                                    1 1 sque /alds.
total - A = Sum (product - A)
                                    1 F magning 0
 total - B = Sum (product - B)
                                        DIVINOVA D
total-c = Sum (product-c)
                                    e dickandment
  products = [ product A', product B', product c']
 totals = [total - A, total - B, total - c]
                               a dubril : chows out
 plt. figure (figsize = (6,4)). Les espois : issue
 pet, bar (products, totals, Color = ['blue, green,
                                  corange'])
 pet, title ( Total Sales Companison).
 plt. Ylabel ( Total units sold) :: (1)
  pt. grid (axis = 'y')
                                  Name: Patha
                                 Lepertment: 418
  plt. Show ()
                            Lact 5.9876543210
# 3. pie chart - Market Share in Last month
last_month_Sales = [product_A[-1], product_B
                         product_c[-1]]
  plt. figure (figsize = (5,5))
 plt. pie (last - month-Sales, labels = products,
    autopet = '%1,1+% / startangle = 140)
  plt. title ('Market Share - June')
  Alt. show ()
                                      VELTECH
                                PERFORMANCE (5)
 Result - Juis
                                RESUL - AND ANALYSIS (3)
                                YIVA VOCE (3)
                               RECORD (4)
                                TOTAL (15)
                               SIGN WITH DATE
         module for plotting is executed.
```