```
# -*- coding: utf-8 -*-
"""Mejia_Maria_TermProject

Automatically generated by Colaboratory.

Original file is located at
    https://colab.research.google.com/drive/1fGZrfRqJKWTW5SOMVxGOzxLOW2CLTtoV
"""

# Maria Mejia
# Term Project INSY 3436 Programming with Python
#Import
import pandas as pd
df = pd.read_csv('students.txt', sep='\t', lineterminator='\r')
pd.set_option('display.max_rows', None)

#Welcome Message
print("Welcome To Query\n")
print("1. Display All Records")
print("2. Display Students With Last Name Beginning With A Letter")
print("3. Display Students Graduating In A Chosen Year")
print("4. Display Summary Report Students Graduating On & After A Chosen Year\n")

try:
  #Ask User
  c = int(input("Enter Choice: "))
  print("")

  if c == 1:
    #Print All
    print(df)
  elif c == 2:
      #Ask The User For The Letter
      #Find First Letter Of Last Names
      #Only Keep Records With That Letter
      #Print Remaining Records
      letter = str(input("Select Letter: "))
      letter = letter.upper()

      print("ID     Last    First    GradYear     GradTerm   DegreeProgram")
      for i in range(len(df)):
        if df['Last'][i][0] == letter:
          print(df['ID'][i], "  ", df['Last'][i], "  ", df['First'][i], "  ", df['GradYear'][i], "  ", df['GradTerm'][i], "  ", df[
'DegreeProgram'][i])

  elif c == 3:
      #Ask The User For The Year
      number = int(input('Select Grad Year (2019 - 2021):'))

      print("ID     Last    First    GradYear     GradTerm   DegreeProgram")
      #Find The Year Of Graduation
      #Only Keep Records With That Year
      #Print Remaining Records
      for i in range(len(df)):
        if df['GradYear'][i] == number:

          print(df['ID'][i], "  ", df['Last'][i], "  ", df['First'][i], "  ", df['GradYear'][i], "  ", df['GradTerm'][i], "  ",df[
'DegreeProgram'][i])

      #If number is not an integer, then break and print the error

  elif c == 4:

      #Ask The User For The Year
      number = int(input('Select Grad Year (2019 - 2021):'))
      #Find The Year or Years Of Graduation On or After The Chosen Year
      #Only Keep Records With That/Those Years
      #Calculate Percentages For Each Program
      #Calculate The Amount Of Students In Each Program

      if number > 2021:
        print('No Data Record Available.')

#creates a new data frame for records matching the user's input for GradYear
      else:
        df_c4 = pd.DataFrame(df[df['GradYear'] >= number]['DegreeProgram'].value_counts())
        df_c4['Percent'] = round(df_c4['DegreeProgram'] / df_c4['DegreeProgram'].sum(),3) * 100
        print('')
        print(df_c4)

#Prevents the user from inputting the wrong data type
except ValueError:
  print("\nA Wrong Type Of Value Was Entered. Please Try Again.")

df_c4['DegreeProgram'].sum()
```

```
pd.DataFrame(df[df['GradYear']

letter = str(input("Select Letter: "))

 nt("ID     Last    First    GradYear")
for i in range(len(df)):
  if df['Last'][i][0] == letter:
    print(df['ID'][i], df['Last'][i]) #Add in First        GradYear        GradTerm        DegreeProgram

df.groupby('GradYear')['GradYear'].count()

df[df['GradYear'] >= 2020]['DegreeProgram'].value_counts()
```