**Assignment 5 - Solution**

Write a NumPy program that reads a CSV file containing data about a group of students (ID, name, grade) and computes the average grade for each student.

Create the CSV file with the following data :

ID,Name,Grade

1,Alice,90

2,Bob,85

3,Charlie,75

4,Dave,95

5,Eve,80

import numpy as np

# load the CSV file into a NumPy array

data = np.genfromtxt('students.csv', delimiter=',', skip\_header=True, dtype=[('ID', 'i4'), ('Name', 'U10'), ('Grade', 'f4')])

# extract the unique IDs from the data

ids = np.unique(data['ID'])

# loop over the IDs and compute the average grade for each student

for id in ids:

    grades = data[data['ID'] == id]['Grade']

    avg\_grade = np.mean(grades)

    print("Student", id, ":", avg\_grade)

The **np.genfromtxt()** function is used to load the CSV file into a NumPy array. The **delimiter** parameter specifies that the fields in the CSV file are separated by commas, and the **skip\_header** parameter specifies that the first row of the file should be skipped. The **dtype** parameter specifies the data types of the fields in the resulting NumPy array.

Next, the unique IDs are extracted from the data using the **np.unique()** function. The program then loops over the IDs and computes the average grade for each student using the **np.mean()** function.