Data Manipulation:

1. **Task Description**

The task involves creating a custom NumPy data type to represent student information (ID, name, department, and CGPA) and then using it within a NumPy array.

2. **Task Output Screenshot**

```
# Creating a custom numpy datatype
student_dtypes=np.dtype([
    ('student_id','i8'),
    ('name','U10'),
    ('department','U10'),
    ('CGPA','f4')
])
```

```
# using numpy datatype in an array
student=np.array([
    (210410116000,'xyz','CE',8.42),
    (210410116001,'abc','CE',8.2),
    (210410116000,'pqr','IT',7.42),
    (210410116000,'lor','MCA',6.52)
],dtype=student_dtypes)
```

```
print(student)
```

```
[(210410116000, 'xyz', 'CE', 8.42) (210410116001, 'abc', 'CE', 8.2 )
 (210410116000, 'pqr', 'IT', 7.42) (210410116000, 'lor', 'MCA', 6.52)]
```

3. **Widget/Algorithm Used In Task**
   - **NumPy library:** Used to create custom data types and store structured data within arrays.
   - **Custom Data Type:** A structured data type (student_dtypes) is created to hold student information, illustrating how complex data structures can be managed in arrays.