

Lec2

January 21, 2021

15CSE374 DSA ### Lecture 2 ##### Topics - ADT and DS - Abstraction

0.0.1 Student as ADT

- Data members :: CGPA
- Interfaces :: setCGPA, Grade – functions –to manipulate the data members... take arg as well as it can return values

```
[ ]: class Student: # template or blueprint
    def __init__(self):
        self.__CGPA=10 #private member
        self.sgpa=0 # public member

    def grade(self):#method
        print("The cgpa is : ",self.__CGPA)

    def sgpaprint(self):
        print("The sgpa is : ",self.sgpa)

    def setCGPA(self,cgpa):#method .. takes an arg and assigns it to __CGPA_
    ↪variable
        self.__CGPA= cgpa
```

```
[ ]: s1=Student()# object
```

```
[ ]: print(s1)
```

```
[ ]: s1.grade()
```

```
[ ]: s1.sgpaprint()
```

```
[ ]: s1.sgpa=6.5
```

```
[ ]: s1.sgpaprint()
```

```
[ ]: s1.__CGPA=8.5
```

```
[ ]:
```

```
[ ]: s1.grade()
```

```
[ ]: # __ means that the variable or data member is private.. data members without_  
      ↪ using the interface...
```

```
[ ]: s1.setCGPA(9.9)
```

```
[ ]: s1.grade()
```

```
[ ]:
```