Python feature	Purpose	Line number
class	Using methods and attributes by creating objects	1 - 121
Initialization *init*	Initializ arguments to private\public attributes.	2
Public artibuttes	Accesable all placces *note: by default it'll be public	5
Private artibutes	Only accesable within the class	6
A method	Called function on other languae, used to perform taskes when it's called	29
An if statment	Used to compare two things, is it greater smalleretc if it's right it'll do tasks if not will be skipped. *can be nasted if else, elif	41
Uncapitlaze a string	STRING.lower() #ABDULLAH to abdullah *built in pyhton no need to make it	41
and	.Used if two thing or more are the same or not	111
Printing on screen	By just wriing print("whateverYouWant") #spreating artibtues by a coma like line 184 "d",x,""abc	148
Len(string)	Built in function to count how many letters in the string	189
object	You can make as much as you want of object and every one has it's own information	198
Constructors	ClassName(a,b,c) Passing for Initializtion	198
Taking input	input("optinal printing") taking input from the user :Synatx	198
New line and space	\t is space \n is new line	313

```
⊡class read:
□ def i
                                                                                                                                                                                                                             ÷
           \begin{tabular}{ll} \beg
                                                                                                                                                                                                                                             ig.
                                      catg1, book1, pages1, catg2, book2, pages2,
                                                                                                                                                                                                                                             4
                                    catg3, book3, pages3, catg4, book4, pages4, catg5, book5, pages5):
                     self.name = name
                     self.__number = number # private attribute
                     self.__email = email # private attribute
                     self.catg1 = catg1
                     self.book1 = book1
                     self.pages1 = pages1
                    self.catg2 = catg2
                     self.book2 = book2
                     self.pages2 = pages2
                     self.catg3 = catg3
                     self.book3 = book3
                     self.pages3 = pages3
                    self.catg4 = catg4
                     self.book4 = book4
                     self.pages4 = pages4
                     self.catg5 = catg5
                     self.book5 = book5
                     self.pages5 = pages5
            def getNumber(self):
                     return self.__number
            def getEmail(self):
                     return self.__email
            def booksPages(self): # getting all pages of all books an object read
                       return self.pages1 + self.pages2 +self.pages3 +self.pages4 +self.pages5
           def countHistory(self):
                     counter = 0
                     if(self.catg1.lower() == 'history'):
                              counter += 1
                     if(self.catg2.lower() == 'history'):
                              counter += 1
                     if(self.catg3.lower() == 'history'):
                              counter += 1
                     if(self.catg4.lower() == 'history'):
                              counter += 1
                     if(self.catg5.lower() == 'history'):
                              counter += 1
                     return counter
            def countStory(self):
                                                                                                                                                                                                                                            counter = 0
                     if(self.catg1.lower() == 'story'):
                              counter += 1
                     if(self.catg2.lower() == 'story'):
                             counter += 1
                     if(self.catg3.lower() == 'story'):
                              counter += 1
                     if(self.catg4.lower() == 'story'):
                              counter += 1
                     if(self.catg5.lower() == 'story'):
                              counter += 1
                     return counter
           def countScientist(self):
                     counter = 0
                     if(self.catg1.lower() == 'scientist'):
                             counter += 1
                     if(self.catg2.lower() == 'scientist'):
                              counter += 1
                     if(self.catg3.lower() == 'scientist'):
                             counter += 1
                     if(self.catg4.lower() == 'scientist'):
                              counter += 1
                     if(self.catg5.lower() == 'scientist'):
                              counter += 1
                     return counter
```

```
def countReligious(self):
   counter = 0
    if(self.catg1.lower() == 'religious'):
        counter += 1
    if(self.catg2.lower() == 'religious'):
        counter += 1
    if(self.catg3.lower() == 'religious'):
        counter += 1
    if(self.catg4.lower() == 'religious'):
        counter += 1
    if(self.catg5.lower() == 'religious'):
        counter += 1
    return counter
def countLiterature(self):
    counter = 0
    if(self.catg1.lower() == 'literature'):
        counter += 1
    if(self.catg2.lower() == 'literature'):
       counter += 1
    if(self.catg3.lower() == 'literature'):
       counter += 1
    if(self.catg4.lower() == 'literature'):
       counter += 1
    if(self.catg5.lower() == 'literature'):
        counter += 1
    return counter
def countOthers(self):
    counter = 0
    if(self.cate1.lower() != 'literature' and self.cate1.lower() != 'religious' and self.cate1.lower() != 'history' and self.cate1.lower() != 'story' and self.cate1.lower() != 'scientist'):
       counter += 1
    if(self.catg2.lower() != 'literature' and self.catg2.lower() != 'religious' and self.catg2.lower() != 'history' and self.catg2.lower() != 'story' and self.catg2.lower() != 'scientist'):
        counter += 1
    if(self.catg3.lower() != 'literature' and self.catg3.lower() != 'religious' and self.catg3.lower() != 'history' and self.catg3.lower() != 'story' and self.catg3.lower() != 'scientist'):
        counter += 1
    if(self.catg4.lower() != 'literature' and self.catg4.lower() != 'religious' and self.catg4.lower() != 'history' and self.catg4.lower() != 'story' and self.catg4.lower() != 'scientist'):
        counter += 1
    if(self.catg5.lower() != 'literature' and self.catg5.lower() != 'religious' and self.catg5.lower() != 'history' and self.catg5.lower() != 'story' and self.catg5.lower() != 'scientist'):
        counter += 1
    return counter
```

```
def add_all(i1,i2,i3,i4,i5,i6,i7,i8,i9,i10): # can be used to add all everyones' pages also cour
def printMostCatg(history, story, scientist, religious, literature, other):
      biggest = history
      BIGGEST = 'history'
      if biggest < story:</pre>
       biggest = story
       BIGGEST = 'story'
      if biggest < scientist:</pre>
          biggest = scientist
          BIGGEST = 'scientist'
      if biggest < religious:</pre>
          biggest = religious
          BIGGEST = 'religious'
      if biggest < literature:</pre>
          biggest = literature
          BIGGEST = 'literature'
      if biggest < other:
          biggest = other
          BIGGEST = 'other'
      print("The most catagory was read is",BIGGEST,"by" , biggest,"books")
 def printMostPages(name1, pages1, name2, pages2, name3, pages3, name4, pages4, name5, pages5,
               name6, pages6, name7, pages7, name8, pages8, name9, pages9, name10, pages10):
      biggest = pages1
     BIGGEST = name1
      if biggest < pages2:</pre>
       biggest = pages2
       BIGGEST = name2
      if biggest < pages3:</pre>
          biggest = pages3
          BIGGEST = name3
      if biggest < pages4:</pre>
       biggest = pages4
       BIGGEST = name4
      if biggest < pages5:</pre>
          biggest = pages5
          BIGGEST = name5
      if biggest < pages6:</pre>
       biggest = pages6
       BIGGEST = name6
      if biggest < pages7:</pre>
          biggest = pages7
          BIGGEST = name7
      if biggest < pages8:</pre>
       biggest = pages8
       BIGGEST = name8
      if biggest < pages9:</pre>
          biggest = pages9
          BIGGEST = name9
      if biggest < pages10:</pre>
       biggest = pages10
       BIGGEST = name10
      print("The one who read pages the most is",BIGGEST, "by", biggest, "pages")
□def printSQ(string, num): # printing a schedule
      if len(string) < 7:</pre>
                                   # counting how many letters to mange blanks ( \t )
       print(string,"\t\t", num)
       print(string,"\t", num)
```

```
# taking input from the user and
obil = read(input('The name? '),input('Phone number? '), input('Email? '), input('Book 1 catagory? '), input('Book title? '), int(input('Its pages? ')),
           input('Book 2 catagory?'), input('Book title?'), int(input('Its pages?')), input('Book 3 catagory?'), input('Book title?'), int(input('Its pages?')),
         input('Book 4 catagory?'), input('Book title?'), int(input('Its pages?')), input('Book 5 catagory?'), input('Book title?'), int(input('Its pages?')))
obj2 = read(input('The name?'),input('Phone number?'), input('Email?'), input('Book 1 catagory?'), input('Book title?'), int(input('Its pages?')),
           input('Book 2 catagory?'), input('Book title?'), int(input('Its pages?')), input('Book 3 catagory?'), input('Book title?'), int(input('Its pages?')),
         input('Book 4 catagory?'), input('Book title?'), int(input('Its pages?')), input('Book 5 catagory?'), input('Book title?'), int(input('Its pages?')))
obj3 = read(input('The name? '),input('Phone number? '), input('Email? '), input('Book 1 catagory? '), input('Book title? '), int(input('Its pages? ')),
          input('Book 2 catagory?'), input('Book title?'), int(input('Its pages?')), input('Book 3 catagory?'), input('Book title?'), int(input('Its pages?')),
         input('Book 4 catagory?'), input('Book title?'), int(input('Its pages?')), input('Book 5 catagory?'), input('Book title?'), int(input('Its pages?')))
obj4 = read(input('The name?'),input('Phone number?'), input('Email?'), input('Book 1 catagory?'), input('Book title?'), int(input('Its pages?')),
           input('Book 2 catagory? '), input('Book title? '), int(input('Its pages? ')), input('Book 3 catagory? '), input('Book title? '), int(input('Its pages? ')),
         input('Book 4 catagory? ') , input('Book title? '), int(input('Its pages? ')), input('Book 5 catagory? '), input('Book title? '), int(input('Its pages? ')))
obj5 = read(input('The name?'),input('Phone number?'), input('Email?'), input('Book 1 catagory?'), input('Book title?'), int(input('Its pages?')),
           input('Book 2 catagory?'), input('Book title?'), int(input('Its pages?')), input('Book 3 catagory?'), input('Book title?'), int(input('Its pages?')),
         input('Book 4 catagory? ') , input('Book title? '), int(input('Its pages? ')), input('Book 5 catagory? '), input('Book title? '), int(input('Its pages? ')))
obj6 = read(input('The name?'),input('Phone number?'), input('Email?'), input('Book 1 catagory?'), input('Book title?'), int(input('Its pages?')),
          input('Book 2 catagory?'), input('Book title?'), int(input('Its pages?')), input('Book 3 catagory?'), input('Book title?'), int(input('Its pages?')),
         input('Book 4 catagory?'), input('Book title?'), int(input('Its pages?')), input('Book 5 catagory?'), input('Book title?'), int(input('Its pages?')))
obj7 = read(input('The name? '),input('Phone number? '), input('Email? '), input('Book 1 catagory? '), input('Book title? '), int(input('Its pages? ')),
           input('Book 2 catagory?'), input('Book title?'), int(input('Its pages?')), input('Book 3 catagory?'), input('Book title?'), int(input('Its pages?')),
         input('Book 4 catagory?'), input('Book title?'), int(input('Its pages?')), input('Book 5 catagory?'), input('Book title?'), int(input('Its pages?')))
obj8 = read(input('The name?'),input('Phone number?'), input('Email?'), input('Book 1 catagory?'), input('Book title?'), int(input('Its pages?')),
           input('Book 2 catagory? '), input('Book title? '), int(input('Its pages? ')), input('Book 3 catagory? '), input('Book title? '), int(input('Its pages? ')),
         input('Book 4 catagory?'), input('Book title?'), int(input('Its pages?')), input('Book 5 catagory?'), input('Book title?'), int(input('Its pages?')))
obj9 = read(input('The name?'),input('Phone number?'), input('Email?'), input('Book 1 catagory?'), input('Book title?'), int(input('Its pages?')),
          input('Book 2 catagory? '), input('Book title? '), int(input('Its pages? ')), input('Book 3 catagory? '), input('Book title? '), int(input('Its pages? ')),
         input('Book 4 catagory? ') , input('Book title? '), int(input('Its pages? ')), input('Book 5 catagory? '), input('Book title? '), int(input('Its pages? ')))
obj10 = read(input('The name? '),input('Phone number? '), input('Email? '), input('Book 1 catagory? '), input('Book title? '), int(input('Its pages? ')),
          input('Book 2 catagory? '), input('Book title? '), int(input('Its pages? ')), input('Book 3 catagory? '), input('Book title? '), int(input('Its pages? ')),
         input('Book 4 catagory?'), input('Book title?'), int(input('Its pages?')), input('Book 5 catagory?'), input('Book title?'), int(input('Its pages?'))) ""
```

```
# this is just for easily test the program
obj1 = read('Abdullah',96653, 'Abdullah@com', 'story', 'bdm', 200, 'literature', 'ssc', 250, 'literature', 'ccs', 300, 'story', 'ahof', 100, 'story', 'ff', 300)
obj2 = read('Abdullrahman',96655, 'Abdullrahman@com', 'story', 'bdm', 100, 'story', 'ssc', 100, 'history', 'ccs', 300, 'literature', 'ahof', 100, 'story', 'ff', 300)
obj3 = read('Abdullaziz',96664, 'Abdullaziz@com', 'story', 'bdm', 200, 'literature', 'ssc', 250, 'history', 'ccs', 300, 'literature', 'ahof', 100, 'literature', 'ff', 300)
obj4 = read('Omar',96652, 'Omar@com', 'literature', 'bdm', 200, 'literature', 'ssc', 250, 'literature', 'ccs', 300, 'story', 'ahof', 100, 'story', 'ff', 300)
obj5 = read('Khalid',96651, 'Khalid@com', 'religious', 'bdm', 200, 'religious', 'ssc', 250, 'religious', 'ccs', 300, 'literature', 'ahof', 100, 'history', 'ff', 300)
obj6 = read('Saleh',96612, 'Saleh@com', 'scientist', 'bdm', 200, 'scientist', 'ssc', 250, 'literature', 'ccs', 300, 'literature', 'ahof', 100, 'story', 'ff', 300)
obj7 = read('Mohammed',96622, 'Mohammed@com', 'history', 'bdm', 200, 'scientist', 'ssc', 250, 'literature', 'ccs', 300, 'scientist', 'ahof', 100, 'story', 'ff', 300)
obj8 = read('Bandar',96612, 'Bader@com', 'literature', 'bdm', 200, 'scientist', 'ssc', 250, 'scientist', 'ccs', 300, 'history', 'ahof', 100, 'story', 'ff', 300)
obj9 = read('Abdulelah',96629, 'Abdulelah@com', 'history', 'bdm', 200, 'literature', 'ssc', 250, 'history', 'ccs', 300, 'history', 'ahof', 100, 'story', 'ff', 300)
obj10 = read('Eyad',96699, 'eyad@com', 'Literature', 'bdm', 500, 'literature', 'ssc', 250, 'history', 'ccs', 300, 'cv', 'ahof', 100, 'cv', 'ff', 300)
```

```
# initialize and counting all history/story etc... was written. *it'll used in last two printing*
 countAllhistory = add all(obj1.countHistory(), obj2.countHistory(), obj3.countHistory(), obj4.countHistory(), obj5.countHistory(),
                           obj6.countHistory(), obj7.countHistory(), obj8.countHistory(), obj9.countHistory(), obj10.countHistory())
 countAllstory = add all(obj1.countStory(), obj2.countStory(), obj3.countStory(), obj4.countStory(), obj5.countStory(),
                           obj6.countStory(), obj7.countStory(), obj8.countStory(), obj9.countStory(), obj10.countStory())
 countAllscientist = add all(obj1.countScientist(), obj2.countScientist(), obj3.countScientist(), obj4.countScientist(), obj5.countScientist(),
                           obj6.countScientist(), obj7.countScientist(), obj8.countScientist(), obj9.countScientist(), obj10.countScientist())
 countAllreligious = add all(obj1.countReligious(), obj2.countReligious(), obj3.countReligious(), obj4.countReligious(), obj5.countReligious(),
                           obj6.countReligious(), obj7.countReligious(), obj8.countReligious(), obj9.countReligious(), obj10.countReligious())
 countAllLiterature = add_all(obj1.countLiterature(), obj2.countLiterature(), obj3.countLiterature(), obj4.countLiterature(), obj5.countLiterature(),
                           obj6.countLiterature(), obj7.countLiterature(), obj8.countLiterature(), obj9.countLiterature(), obj10.countLiterature())
 countAllother = add all(obj1.countOthers(), obj2.countOthers(), obj3.countOthers(), obj4.countOthers(), obj5.countOthers(),
                           obj6.countOthers(), obj7.countOthers(), obj8.countOthers(), obj9.countOthers(), obj10.countOthers())
 # ALL THE FOLLOWING ARE PRINTING STATMENTS
 print("NAME","\t\t","ALL PAGES")
 printSQ(obj1.name,obj1.booksPages())
 printSQ(obj2.name,obj2.booksPages())
 printSQ(obj3.name,obj3.booksPages())
 printSQ(obj4.name,obj4.booksPages())
 printSQ(obj5.name,obj5.booksPages())
                                           # passing
 printSQ(obj6.name,obj6.booksPages())
                                        # name page
 printSQ(obj7.name,obj7.booksPages())
 printSQ(obj8.name,obj8.booksPages())
 printSQ(obj9.name,obj9.booksPages())
 printSQ(obj10.name,obj10.booksPages())
print("\n\nAll the group members have read ",add all(obj1.booksPages(), obj2.booksPages(), obj3.booksPages(),
                                                      obj4.booksPages(), obj5.booksPages(), obj6.booksPages(),
                                                     obj7.booksPages(), obj8.booksPages(), obj9.booksPages(),
                                                    obj10.booksPages()), "pages by 50 books\n")
```

```
printMostPages(obj1.name,obj1.booksPages(), obj2.name,obj2.booksPages(), obj3.name,obj3.booksPages(),
           obj4.name,obj4.booksPages(),obj5.name,obj5.booksPages(), obj6.name,obj6.booksPages(),
           obj7.name,obj7.booksPages(), obj8.name,obj8.booksPages(), obj9.name,obj9.booksPages(),
           obj10.name,obj10.booksPages())
 print("\n\nCATAGORY \t BOOKS")
 printSQ('history', countAllhistory)
 printSQ('story', countAllstory)
 printSO('scientist',countAllscientist)
 printSQ('religious',countAllreligious)
 printSQ('literature',countAllLiterature)
 printS0('other',countAllother)
 print("\n")
 printMostCatg(countAllhistory, countAllstory, countAllscientist, countAllreligious, countAllLiterature, countAllother)
 print("")
```

```
# this is just for easily test the program
             obj1 = read('Abdullah',96653, 'Abdullah@com', 'story', 'bdm', 200, 'literature', 'ssc', 250, 'literature', 'ccs', 300, 'story', 'ahof', 100, 'story', 'ff', 300)
             obj2 = read('Abdullrahman',96655, 'Abdullrahman@com', 'story', 'bdm', 100, 'story', 'ssc', 100, 'history', 'ccs', 300, 'literature', 'ahof', 100, 'story', 'ff', 300)
             obj3 = read('Abdullaziz',96664, 'Abdullaziz@com', 'story', 'bdm', 200, 'literature', 'ssc', 250, 'history', 'ccs', 300, 'literature', 'ahof', 100, 'literature', 'ff', 300)
             obj4 = read('Omar',96652, 'Omar@com', 'literature', 'bdm', 200, 'literature', 'ssc', 250, 'literature', 'ccs', 300, 'story', 'ahof', 100, 'story', 'ff', 300)
             obj5 = read('Khalid',96651, 'Khalid@com', 'religious', 'bdm', 200, 'religious', 'ssc', 250, 'religious', 'ccs', 300, 'literature', 'ahof', 100, 'history', 'ff', 300)
             obj6 = read('Saleh',96612, 'Saleh@com', 'scientist', 'bdm', 200, 'scientist', 'ssc', 250, 'literature', 'ccs', 300, 'literature', 'ahof', 100, 'story', 'ff', 300)
             obj7 = read('Mohammed',96622, 'Mohammed@com', 'history', 'bdm', 200, 'scientist', 'ssc', 250, 'literature', 'ccs', 300, 'scientist', 'ahof', 100, 'story', 'ff', 300)
             obj8 = read('Bandar',96612, 'Bader@com', 'literature', 'bdm', 200, 'scientist', 'ssc', 250, 'scientist', 'ccs', 300, 'history', 'ahof', 100, 'story', 'ff', 300)
             obj9 = read('Abdulelah',96629, 'Abdulelah@com', 'history', 'bdm', 200, 'literature', 'ssc', 250, 'history', 'ccs', 300, 'history', 'ahof', 100, 'story', 'ff', 300)
             obj10 = read('Eyad',96699, 'eyad@com', 'Literature', 'bdm', 500, 'literature', 'ssc', 250, 'history', 'ccs', 300, 'cv', 'ahof', 100, 'cv', 'ff', 300)
                                                                                                                         ×
             C:\WINDOWS\system32\cmd.exe
            NAME
                             ALL PAGES
            Abdullah
                            1150
            Abdullrahman
                             900
            Abdullaziz
                            1150
            Omar
                            1150
            Khalid
                            1150
            Saleh
                            1150
            Mohammed
                             1150
            Bandar
                            1150
            Abdulelah
                            1150
            Eyad
                             1450
            All the group members have read 11550 pages by 50 books
            The one who read pages the most is Eyad by 1450 pages
            CATAGORY
                             BOOKS
            history
            story
            scientist
            religious
            literature
            other
117 % -
Error List Output The most catagory was read is literature by 17 books
                                                                                                                                 ✓ Ln 281
                                                                                                                                                Col 1
                                                                                                                                                           Ch 1
Ready
            Press any key to continue . . .
```