

Python feature	Description	Line number
class	Using methods and attributes by creating objects	1 - 124
Initialization * __init__ *	Initializ arguments to private\public attributes like constractor in cpp.	2
Public artibuttes	Accesable all places *note: by default it'll be public	5
Private artibutes	Only accesable within the class	6
A method	Called function on other language, used to perform tasks when it's called	29
Private method	Only accesable within the class PrivateFun() __.self :Calling by	35
An if statement	Used to compare two things, is it greater smaller..etc if it's right it'll do tasks if not will be skipped. *can be nasted if else, elif	44
If else	If CONDITION: Statement Else: statement	198
Uncapitalize a string	STRING.lower() #ABDULLAH to abdullah *built in python no need to make it	44
and	Used if two thing or more are the same or not.	114
array / List	Same as array in .A group of elements can be numbers string etc list = {unchangedable} ,[Name = {elements} .++c	129
For loop	Useful when dealing with arrays. .A reputation statement For anyName in list:	131
Printing on screen	By just writing print("whateverYouWant") #spreating artibtues by a coma like line 184 "d",x,""abc	155
Len(string)	Built in function to count how many letters in the string	196
object	You can make as much as you want of object and every one has it's own information	205
Constructors	ClassName(a,b,c) Passing for Initializtion	205
Taking input	input("optinal printing") taking input from the user :Synatx	205
New line and space	\t is space \n is new line	320

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1 class read:
2     def __init__(self, name, number, email, # initialize the attributes
3         catg1, book1, pages1, catg2, book2, pages2,
4         catg3, book3, pages3, catg4, book4, pages4, catg5, book5, pages5):
5         self.name = name
6         self.__number = number # private attribute
7         self.__email = email # private attribute
8
9         self.catg1 = catg1
10        self.book1 = book1
11        self.pages1 = pages1
12
13        self.catg2 = catg2
14        self.book2 = book2
15        self.pages2 = pages2
16
17        self.catg3 = catg3
18        self.book3 = book3
19        self.pages3 = pages3
20
21        self.catg4 = catg4
22        self.book4 = book4
23        self.pages4 = pages4
24
25        self.catg5 = catg5
26        self.book5 = book5
27        self.pages5 = pages5
28
29    def getNumber(self):
30        return self.__number
31
32    def getEmail(self):
33        return self.__email
34
35    def __aPersonPages(self): # private method
36        return self.pages1 + self.pages2 +self.pages3 +self.pages4 +self.pages5
37
38    def booksPages(self): # getting all pages of all books an object read
39        return self.__aPersonPages()
40
41
42    def countHistory(self):
43        counter = 0
44        if(self.catg1.lower() == 'history'):
45            counter += 1
46        if(self.catg2.lower() == 'history'):
47            counter += 1
48        if(self.catg3.lower() == 'history'):
49            counter += 1
50        if(self.catg4.lower() == 'history'):
51            counter += 1
52        if(self.catg5.lower() == 'history'):
53            counter += 1
54        return counter
55
56    def countStory(self):
57        counter = 0
58        if(self.catg1.lower() == 'story'):
59            counter += 1
60        if(self.catg2.lower() == 'story'):
61            counter += 1
62        if(self.catg3.lower() == 'story'):
63            counter += 1
64        if(self.catg4.lower() == 'story'):
65            counter += 1
66        if(self.catg5.lower() == 'story'):
67            counter += 1
68        return counter
69
70    def countScientist(self):
71        counter = 0
72        if(self.catg1.lower() == 'scientist'):
73            counter += 1
74        if(self.catg2.lower() == 'scientist'):
75            counter += 1
76        if(self.catg3.lower() == 'scientist'):
77            counter += 1
78        if(self.catg4.lower() == 'scientist'):
79            counter += 1
80        if(self.catg5.lower() == 'scientist'):
81            counter += 1
82        return counter
83
84    def countReligious(self):
85        counter = 0
86        if(self.catg1.lower() == 'religious'):
87            counter += 1
88        if(self.catg2.lower() == 'religious'):
89            counter += 1
90        if(self.catg3.lower() == 'religious'):
91            counter += 1
92        if(self.catg4.lower() == 'religious'):
93            counter += 1
94        if(self.catg5.lower() == 'religious'):
95            counter += 1
96        return counter
97

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98     def countLiterature(self):
99         counter = 0
100         if(self.catg1.lower() == 'literature'):
101             counter += 1
102         if(self.catg2.lower() == 'literature'):
103             counter += 1
104         if(self.catg3.lower() == 'literature'):
105             counter += 1
106         if(self.catg4.lower() == 'literature'):
107             counter += 1
108         if(self.catg5.lower() == 'literature'):
109             counter += 1
110         return counter
111
112     def countOthers(self):
113         counter = 0
114         if(self.catg1.lower() != 'literature' and self.catg1.lower() != 'religious' and self.catg1.lower() != 'history' and self.catg1.lower() != 'story' and self.catg1.lower() != 'scientist'):
115             counter += 1
116         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'):
117             counter += 1
118         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'):
119             counter += 1
120         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'):
121             counter += 1
122         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'):
123             counter += 1
124         return counter
125
126
127
128     def add_all(i1,i2,i3,i4,i5,i6,i7,i8,i9,i10): # can be used to add all everyones' pages also count everyones' catagories
129         list = [i1 , i2 , i3 , i4 , i5 , i6 , i7 , i8 , i9 , i10]
130         sum = 0
131         for x in list:
132             sum += x
133         return sum
134
135

```

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136 def printMostCatg(history, story, scientist, religious, literature, other):
137     biggest = history
138     BIGGEST = 'history'
139
140     if biggest < story:
141         biggest = story
142         BIGGEST = 'story'
143     if biggest < scientist:
144         biggest = scientist
145         BIGGEST = 'scientist'
146     if biggest < religious:
147         biggest = religious
148         BIGGEST = 'religious'
149     if biggest < literature:
150         biggest = literature
151         BIGGEST = 'literature'
152     if biggest < other:
153         biggest = other
154         BIGGEST = 'other'
155     print("The most catagory was read is",BIGGEST,"by" , biggest,"books")
156
157
158 def printMostPages(name1, pages1, name2, pages2, name3, pages3, name4, pages4, name5, pages5,
159     name6, pages6, name7, pages7, name8, pages8, name9, pages9, name10, pages10):
160     biggest = pages1
161     BIGGEST = name1
162
163     if biggest < pages2:
164         biggest = pages2
165         BIGGEST = name2
166     if biggest < pages3:
167         biggest = pages3
168         BIGGEST = name3
169     if biggest < pages4:
170         biggest = pages4
171         BIGGEST = name4
172     if biggest < pages5:
173         biggest = pages5
174         BIGGEST = name5
175     if biggest < pages6:
176         biggest = pages6
177         BIGGEST = name6
178     if biggest < pages7:
179         biggest = pages7
180         BIGGEST = name7
181     if biggest < pages8:
182         biggest = pages8
183         BIGGEST = name8
184     if biggest < pages9:
185         biggest = pages9
186         BIGGEST = name9
187     if biggest < pages10:
188         biggest = pages10
189         BIGGEST = name10
190
191     print("The one who read pages the most is",BIGGEST,"by", biggest,"pages")
192
193
194 def printSQ(string, num): # printing a schedule
195
196     if len(string) < 7:          # counting how many letters to mange blanks ( \t )
197         print(string,"\t\t", num)
198     else:
199         print(string,"\t", num)
200
201
202

```



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247 # this is just for easily test the program
248 obj1 = read('Abdullah',96653, 'Abdullah@com', 'story', 'bdm', 200, 'literature', 'ssc', 250, 'literature', 'ccs', 300, 'story', 'ahof', 100, 'story', 'ff', 300)
249
250 obj2 = read('Abdullrahman',96655, 'Abdullrahman@com', 'story', 'bdm', 100, 'story', 'ssc', 100, 'history', 'ccs', 300, 'literature', 'ahof', 100, 'story', 'ff', 300)
251
252 obj3 = read('Abdullaziz',96664, 'Abdullaziz@com', 'story', 'bdm', 200, 'literature', 'ssc', 250, 'history', 'ccs', 300, 'literature', 'ahof', 100, 'literature', 'ff', 300)
253
254 obj4 = read('Omar',96652, 'Omar@com', 'literature', 'bdm', 200, 'literature', 'ssc', 250, 'literature', 'ccs', 300, 'story', 'ahof', 100, 'story', 'ff', 300)
255
256 obj5 = read('Khalid',96651, 'Khalid@com', 'religious', 'bdm', 200, 'religious', 'ssc', 250, 'religious', 'ccs', 300, 'literature', 'ahof', 100, 'history', 'ff', 300)
257
258 obj6 = read('Saleh',96612, 'Saleh@com', 'scientist', 'bdm', 200, 'scientist', 'ssc', 250, 'literature', 'ccs', 300, 'literature', 'ahof', 100, 'story', 'ff', 300)
259
260 obj7 = read('Mohammed',96622, 'Mohammed@com', 'history', 'bdm', 200, 'scientist', 'ssc', 250, 'literature', 'ccs', 300, 'scientist', 'ahof', 100, 'story', 'ff', 300)
261
262 obj8 = read('Bandar',96612, 'Bader@com', 'literature', 'bdm', 200, 'scientist', 'ssc', 250, 'scientist', 'ccs', 300, 'history', 'ahof', 100, 'story', 'ff', 300)
263
264 obj9 = read('Abdulelah',96629, 'Abdulelah@com', 'history', 'bdm', 200, 'literature', 'ssc', 250, 'history', 'ccs', 300, 'history', 'ahof', 100, 'story', 'ff', 300)
265
266 obj10 = read('Eyad',96699, 'eyad@com', 'Literature', 'bdm', 500, 'literature', 'ssc', 250, 'history', 'ccs', 300, 'cv', 'ahof', 100, 'cv', 'ff', 300)
267
268
269
270 # initialize and counting all history/story etc... was written. *it'll used in last two printing*
271 countAllhistory = add_all(obj1.countHistory(), obj2.countHistory(), obj3.countHistory(), obj4.countHistory(), obj5.countHistory(),
272                           obj6.countHistory(), obj7.countHistory(), obj8.countHistory(), obj9.countHistory(), obj10.countHistory())
273
274 countAllstory = add_all(obj1.countStory(), obj2.countStory(), obj3.countStory(), obj4.countStory(), obj5.countStory(),
275                          obj6.countStory(), obj7.countStory(), obj8.countStory(), obj9.countStory(), obj10.countStory())
276
277 countAllscientist = add_all(obj1.countScientist(), obj2.countScientist(), obj3.countScientist(), obj4.countScientist(), obj5.countScientist(),
278                             obj6.countScientist(), obj7.countScientist(), obj8.countScientist(), obj9.countScientist(), obj10.countScientist())
279
280 countAllreligious = add_all(obj1.countReligious(), obj2.countReligious(), obj3.countReligious(), obj4.countReligious(), obj5.countReligious(),
281                              obj6.countReligious(), obj7.countReligious(), obj8.countReligious(), obj9.countReligious(), obj10.countReligious())
282
283 countAllliterature = add_all(obj1.countLiterature(), obj2.countLiterature(), obj3.countLiterature(), obj4.countLiterature(), obj5.countLiterature(),
284                               obj6.countLiterature(), obj7.countLiterature(), obj8.countLiterature(), obj9.countLiterature(), obj10.countLiterature())
285
286 countAllother = add_all(obj1.countOthers(), obj2.countOthers(), obj3.countOthers(), obj4.countOthers(), obj5.countOthers(),
287                          obj6.countOthers(), obj7.countOthers(), obj8.countOthers(), obj9.countOthers(), obj10.countOthers())
288
289

```

290 # ALL THE FOLLOWING ARE PRINTING STATMENTS

```
291
292 print("NAME","\t\t","ALL PAGES")
293 printSQ(obj1.name,obj1.booksPages())
294 printSQ(obj2.name,obj2.booksPages())
295 printSQ(obj3.name,obj3.booksPages())
296 printSQ(obj4.name,obj4.booksPages())
297 printSQ(obj5.name,obj5.booksPages()) # passing
298 printSQ(obj6.name,obj6.booksPages()) # name page
299 printSQ(obj7.name,obj7.booksPages())
300 printSQ(obj8.name,obj8.booksPages())
301 printSQ(obj9.name,obj9.booksPages())
302 printSQ(obj10.name,obj10.booksPages())
303
304
305
306 print("\n\nAll the group members have read ",add_all(obj1.booksPages(), obj2.booksPages(), obj3.booksPages(),
307 | obj4.booksPages(), obj5.booksPages(), obj6.booksPages(),
308 | obj7.booksPages(), obj8.booksPages(), obj9.booksPages(),
309 | obj10.booksPages()), "pages by 50 books\n")
310
311
312
313 printMostPages(obj1.name,obj1.booksPages(), obj2.name,obj2.booksPages(), obj3.name,obj3.booksPages(),
314 | obj4.name,obj4.booksPages(),obj5.name,obj5.booksPages(), obj6.name,obj6.booksPages(),
315 | obj7.name,obj7.booksPages(), obj8.name,obj8.booksPages(), obj9.name,obj9.booksPages(),
316 | obj10.name,obj10.booksPages())
317
318
319
320 print("\n\nCATEGORY \t BOOKS")
321 printSQ('history', countAllhistory)
322
323 printSQ('story', countAllstory)
324
325 printSQ('scientist',countAllscientist)
326
327 printSQ('religious',countAllreligious)
328
329 printSQ('literature',countAllliterature)
330
331 printSQ('other',countAllother)
332
333
334
335 print("\n")
336 printMostCatg(countAllhistory, countAllstory, countAllscientist, countAllreligious, countAllliterature, countAllother )
337 print("")
```



```

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248 obj1 = read('Abdullah',96653, 'Abdullah@com', 'story', 'bdm', 200, 'literature', 'ssc', 250, 'literature', 'ccs', 300, 'story' , 'ahof', 100, 'story', 'ff', 300)
249
250 obj2 = read('Abdullrahman',96655, 'Abdullrahman@com', 'story', 'bdm', 100, 'story', 'ssc', 100, 'history', 'ccs', 300, 'literature' , 'ahof', 100, 'story', 'ff', 300)
251
252 obj3 = read('Abdullaziz',96664, 'Abdullaziz@com', 'story', 'bdm', 200, 'literature', 'ssc', 250, 'history', 'ccs', 300, 'literature' , 'ahof', 100, 'literature', 'ff', 300)
253
254 obj4 = read('Omar',96652, 'Omar@com', 'literature', 'bdm', 200, 'literature', 'ssc', 250, 'literature', 'ccs', 300, 'story' , 'ahof', 100, 'story', 'ff', 300)
255
256 obj5 = read('Khalid',96651, 'Khalid@com', 'religious', 'bdm', 200, 'religious', 'ssc', 250, 'religious', 'ccs', 300, 'literature' , 'ahof', 100, 'history', 'ff', 300)
257
258 obj6 = read('Saleh',96612, 'Saleh@com', 'scientist', 'bdm', 200, 'scientist', 'ssc', 250, 'literature', 'ccs', 300, 'literature' , 'ahof', 100, 'story', 'ff', 300)
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263
264 obj9 = read('Abdulelah',96629, 'Abdulelah@com', 'history', 'bdm', 200, 'literature', 'ssc', 250, 'history', 'ccs', 300, 'history' , 'ahof', 100, 'story', 'ff', 300)
265
266 obj10 = read('Eyad',96699, 'eyad@com', 'Literature', 'bdm', 500, 'literature', 'ssc', 250, 'history', 'ccs', 300, 'cv' , 'ahof', 100, 'cv', 'ff', 300)

```

Select C:\WINDOWS\system32\cmd.exe

```

269 NAME          ALL PAGES
270 Abdullah      1150
271 Abdullrahman  900
272 Abdullaziz    1150
273 Omar          1150
274 Khalid        1150
275 Saleh         1150
276 Mohammed     1150
277 Bandar        1150
278 Abdulelah     1150
279 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

```

287 CATAGORY      BOOKS
288 history       9
289 story         13
290 scientist     6
291 religious     3
292 literature    17
293 other         2

```

The most catagory was read is literature by 17 books