

# Question7

## API Documentation

April 10, 2017

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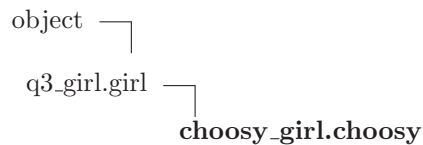
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# 1 Module choosy\_girl

## 1.1 Variables

Name	Description
<code>--package--</code>	<b>Value:</b> None

## 1.2 Class choosy



### 1.2.1 Methods

```
__init__(self, name=None, attractiveness=None, intelligence=None, budget=None)
```

x.**\_\_init\_\_**(...) initializes x; see help(type(x)) for signature

Overrides: object.**\_\_init\_\_** [exitit](#)(inherited documentation)

```
cal_happiness(self, gifts_array)
```

Overrides: q3\_girl.girl.cal\_happiness

### *Inherited from object*

`__delattr__()`, `__format__()`, `__getattr__()`, `__hash__()`, `__new__()`, `__reduce__()`, `__reduce_ex__()`, `__repr__()`, `__setattr__()`, `__sizeof__()`, `__str__()`, `__subclasshook__()`

### 1.2.2 Properties

Name	Description
<i>Inherited from object</i>	
<code>--class--</code>	

### 1.2.3 Instance Variables

Name	Description
typee	this function will calculate happppiness for choosy girl object
<i>Inherited from q3_girl.girl (Section 14.2)</i>	

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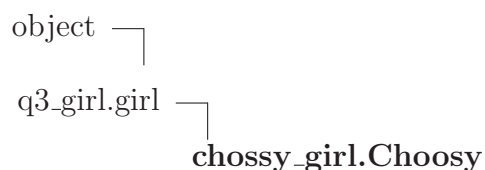
Name	Description
happiness	

## 2 Module chossy\_girl

### 2.1 Variables

Name	Description
<code>--package--</code>	<b>Value:</b> None

### 2.2 Class Choosy



#### 2.2.1 Methods

```
--init--(self, name=None, attractiveness=None, intelligence=None,
budget=None)
```

`x.__init__(...)` initializes x; see `help(type(x))` for signature

Overrides: `object.__init__` extit(inherited documentation)

```
cal_happiness(self, gifts_array)
```

Overrides: `q3_girl.girl.cal_happiness`

#### *Inherited from object*

`--delattr--()`, `--format--()`, `--getattr--()`, `--hash--()`, `--new--()`, `--reduce--()`, `--reduce_ex--()`,  
`--repr--()`, `--setattr--()`, `--sizeof--()`, `--str--()`, `--subclasshook--()`

#### 2.2.2 Properties

Name	Description
<i>Inherited from object</i>	
<code>--class--</code>	

#### 2.2.3 Instance Variables

Name	Description
<i>Inherited from q3_girl.girl (Section 14.2)</i> happiness	



### 3 Module couple\_maker

#### 3.1 Variables

Name	Description
<code>--package--</code>	<b>Value:</b> None

#### 3.2 Class couple

object └─  
couple\_maker.couple

##### 3.2.1 Methods

```
--init__(self, boy_b, girl_g)
```

`x.__init__(...)` initializes x; see `help(type(x))` for signature

Overrides: `object.__init__` `exitit`(inherited documentation)

##### *Inherited from object*

`--delattr--()`, `--format--()`, `--getattr--()`, `--hash--()`, `--new--()`, `--reduce--()`, `--reduce_ex--()`,  
`--repr--()`, `--setattr--()`, `--sizeof--()`, `--str--()`, `--subclasshook--()`

##### 3.2.2 Properties

Name	Description
<i>Inherited from object</i>	
<code>--class--</code>	

## 4 Module *desperate\_girl*

### 4.1 Variables

Name	Description
<code>--package--</code>	<b>Value:</b> <code>None</code>

### 4.2 Class *desperate*



#### 4.2.1 Methods

```
--init--(self, name=None, attractiveness=None, intelligence=None,
budget=None)
```

`x.__init__(...)` initializes `x`; see `help(type(x))` for signature

Overrides: `object.__init__` extit(inherited documentation)

```
cal_happiness(self, gifts_array)
```

Overrides: `q3_girl.girl.cal_happiness`

#### *Inherited from object*

`--delattr--()`, `--format--()`, `--getattr--()`, `--hash--()`, `--new--()`, `--reduce--()`, `--reduce_ex--()`,  
`--repr--()`, `--setattr--()`, `--sizeof--()`, `--str--()`, `--subclasshook--()`

#### 4.2.2 Properties

Name	Description
<i>Inherited from object</i>	
<code>--class--</code>	

#### 4.2.3 Instance Variables

Name	Description
typee	this function will calculate happiness for desperate girl object
<i>Inherited from q3_girl.girl (Section 14.2)</i>	
happiness	

## 5 Module essential\_gift

### 5.1 Variables

Name	Description
<code>--package--</code>	<b>Value:</b> None

### 5.2 Class essential



#### 5.2.1 Methods

`--init--(self, cost=None, value=None, gift_name=None)`  
`x.--init--(...)` initializes x; see `help(type(x))` for signature  
 Overrides: `object.--init--` extit(inherited documentation)

#### *Inherited from object*

`--delattr--()`, `--format--()`, `--getattr--()`, `--hash--()`, `--new--()`, `--reduce--()`, `--reduce_ex--()`,  
`--repr--()`, `--setattr--()`, `--sizeof--()`, `--str--()`, `--subclasshook--()`

#### 5.2.2 Properties

Name	Description
<i>Inherited from object</i>	
<code>--class--</code>	

#### 5.2.3 Class Variables

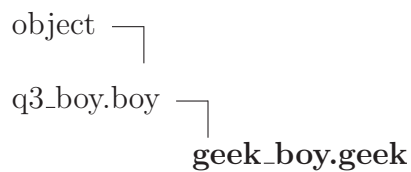
Name	Description
<i>Inherited from q3_gift.gift (Section 13.2)</i>	
<code>--abstractmethods--</code>	

## 6 Module *geek\_boy*

### 6.1 Variables

Name	Description
<code>--package--</code>	<b>Value:</b> <code>None</code>

### 6.2 Class *geek*



#### 6.2.1 Methods

**`--init--`**(*self*, *name=*`None`, *attractiveness=*`None`, *intelligence=*`None`, *budget=*`None`)

`x.--init--(...)` initializes `x`; see `help(type(x))` for signature

Overrides: `object.--init--` `extit`(inherited documentation)

**`cal_happiness`**(*self*, *gifts\_array*, *happiness\_girl*, *intelligence\_girl*)

Overrides: `q3_boy.boy.cal_happiness`

#### *Inherited from object*

`--delattr--()`, `--format--()`, `--getattr--()`, `--hash--()`, `--new--()`, `--reduce--()`, `--reduce_ex--()`, `--repr--()`, `--setattr--()`, `--sizeof--()`, `--str--()`, `--subclasshook--()`

#### 6.2.2 Properties

Name	Description
<i>Inherited from object</i>	
<code>--class--</code>	

#### 6.2.3 Class Variables

Name	Description
<code>__abstractmethods__</code>	<b>Value:</b> <code>frozenset([])</code>

#### 6.2.4 Instance Variables

Name	Description
<code>typee</code>	this function is used to calculate happiness of geek boy type object
<i>Inherited from <code>q3_boy.boy</code> (Section 12.2)</i>	
<code>happiness</code>	

## 7 Module *generous\_boy*

### 7.1 Variables

Name	Description
<code>--package--</code>	<b>Value:</b> <code>None</code>

### 7.2 Class *generous*



#### 7.2.1 Methods

**`--init--`**(*self*, *name=None*, *attractiveness=None*, *intelligence=None*, *budget=None*)

`x.--init--(...)` initializes `x`; see `help(type(x))` for signature

Overrides: `object.--init--` extit(inherited documentation)

**`cal_happiness`**(*self*, *gifts\_array*, *happiness\_girl*, *intelligence\_girl*)

Overrides: `q3_boy.boy.cal_happiness`

#### *Inherited from object*

`--delattr--()`, `--format--()`, `--getattr--()`, `--hash--()`, `--new--()`, `--reduce--()`, `--reduce_ex--()`, `--repr--()`, `--setattr--()`, `--sizeof--()`, `--str--()`, `--subclasshook--()`

#### 7.2.2 Properties

Name	Description
<i>Inherited from object</i>	
<code>--class--</code>	

#### 7.2.3 Class Variables

Name	Description
<code>__abstractmethods__</code>	<b>Value:</b> <code>frozenset([])</code>

#### 7.2.4 Instance Variables

Name	Description
<code>typee</code>	this function is used to calculate happiness for generous object type
<i>Inherited from <code>q3_boy.boy</code> (Section 12.2)</i>	
<code>happiness</code>	



## 8 Module *luxury\_gift*

### 8.1 Variables

Name	Description
<code>--package--</code>	<b>Value:</b> <code>None</code>

### 8.2 Class *luxury*



#### 8.2.1 Methods

**`--init--`**(*self*, *luxury\_gift\_rating*=`None`, *cost*=`None`, *value*=`None`, *gift\_name*=`None`)

`x.--init--(...)` initializes `x`; see `help(type(x))` for signature

Overrides: `object.--init--` `extit`(inherited documentation)

#### *Inherited from object*

`--delattr--()`, `--format--()`, `--getattr--()`, `--hash--()`, `--new--()`, `--reduce--()`, `--reduce_ex--()`, `--repr--()`, `--setattr--()`, `--sizeof--()`, `--str--()`, `--subclasshook--()`

#### 8.2.2 Properties

Name	Description
<i>Inherited from object</i>	
<code>--class--</code>	

#### 8.2.3 Class Variables

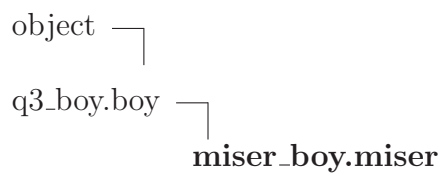
Name	Description
<i>Inherited from <code>q3_gift.gift</code> (Section 13.2)</i>	
<code>--abstractmethods--</code>	

## 9 Module miser\_boy

### 9.1 Variables

Name	Description
<code>--package--</code>	<b>Value:</b> None

### 9.2 Class miser



#### 9.2.1 Methods

**`--init--`**(*self*, *name*=None, *attractiveness*=None, *intelligence*=None, *budget*=None)  
`x.--init--(...)` initializes x; see `help(type(x))` for signature  
 Overrides: `object.--init--` `extit`(inherited documentation)

**`cal_happiness`**(*gifts\_array*, *happiness\_girl*, *intelligence\_girl*)  
 Overrides: `q3_boy.boy.cal_happiness`

#### *Inherited from object*

`--delattr--()`, `--format--()`, `--getattr--()`, `--hash--()`, `--new--()`, `--reduce--()`, `--reduce_ex--()`,  
`--repr--()`, `--setattr--()`, `--sizeof--()`, `--str--()`, `--subclasshook--()`

#### 9.2.2 Properties

Name	Description
<i>Inherited from object</i>	
<code>--class--</code>	

#### 9.2.3 Class Variables

Name	Description
<code>__abstractmethods__</code>	<b>Value:</b> <code>frozenset([])</code>

#### 9.2.4 Instance Variables

Name	Description
<code>typee</code>	this function will calculate happiness for miser boy object
<i>Inherited from q3_boy.boy (Section 12.2)</i>	
<code>happiness</code>	

## 10 Module *normal\_girl*

### 10.1 Variables

Name	Description
<code>--package--</code>	<b>Value:</b> <code>None</code>

### 10.2 Class *normal*



#### 10.2.1 Methods

```
--init__(self, name=None, attractiveness=None, intelligence=None,
budget=None)
```

`x.__init__(...)` initializes `x`; see `help(type(x))` for signature

Overrides: `object.__init__` `extit`(inherited documentation)

```
cal_happiness(self, gifts_array)
```

Overrides: `q3_girl.girl.cal_happiness`

#### *Inherited from object*

`--delattr--()`, `--format--()`, `--getattr--()`, `--hash--()`, `--new--()`, `--reduce--()`, `--reduce_ex--()`,  
`--repr--()`, `--setattr--()`, `--sizeof--()`, `--str--()`, `--subclasshook--()`

#### 10.2.2 Properties

Name	Description
<i>Inherited from object</i>	
<code>--class--</code>	

#### 10.2.3 Instance Variables

Name	Description
<i>Inherited from q3_girl.girl (Section 14.2)</i> happiness	

## 11 Module q3

### 11.1 Functions

```
comapare_gifts(gift_object1, gift_object2)
```

```
compare_fitting(couple1, couple2)
```

```
compare_happiness(couple1, couple2)
```

### 11.2 Variables

Name	Description
girl_array	Value: []
boy_array	Value: []
couple_array	Value: []
gift_array	Value: []
row_count_boys	Value: 12
boyReader	Value: csv.reader(boysfile, delimiter=',')
boyslist	Value: [['ram ', ' 5 ', ' 9 ', ' geek ', ' 100'], ['shyam ', ' 7...
row_count_girls	Value: 6
girlReader	Value: csv.reader(girlsfile, delimiter=',')
girlslist	Value: [['radha ', ' 5 ', ' 6 ', ' choosy ', ' 80'], ['tina ', '...
row_count_gifts	Value: 20
giftReader	Value: csv.reader(giftsfile)
giftslist	Value: [['Luxury ', ' 8 ', ' 9'], ['Utility', ' 5', ' 5'], ['Essen...
k	Value: 4
file	Value: open('ans_file_Happiness.txt', 'w')
ansfilewriter	Value: csv.writer(ansfile)
__package__	Value: None
ansfile	Value: <closed file 'ans_file_Happiness.txt', mode 'a' at 0x7fd1...
boysfile	Value: <closed file 'boys.csv', mode 'r' at 0x7fd15a9de1e0>

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Name	Description
giftsfile	<b>Value:</b> <closed file 'gifts.txt', mode 'r' at 0x7fd15a9de420>
girlsfile	<b>Value:</b> <closed file 'girls.txt', mode 'r' at 0x7fd15a9de150>
hap_boy	<b>Value:</b> 69
hap_girl	<b>Value:</b> 69
i	<b>Value:</b> 3
j	<b>Value:</b> 19
main_cost	<b>Value:</b> 178
row	<b>Value:</b> ['Luxury ', ' 6 ', ' 7']
x	<b>Value:</b> 118
y	<b>Value:</b> 129

## 12 Module q3\_boy

### 12.1 Variables

Name	Description
<code>--package--</code>	<b>Value:</b> None

### 12.2 Class boy

object └─  
          q3\_boy.boy

**Known Subclasses:** geek\_boy.geek, generous\_boy.generous, miser\_boy.miser

#### 12.2.1 Methods

```
--init__(self, name=None, attractiveness=None, intelligence=None,
budget=None)
```

`x.__init__(...)` initializes x; see `help(type(x))` for signature

Overrides: `object.__init__` extit(inherited documentation)

```
cal_happiness(self, gifts_Array, happiness_of_girl, intelligence_girl)
```

#### *Inherited from object*

`--delattr--()`, `--format--()`, `--getattr--()`, `--hash--()`, `--new--()`, `--reduce--()`, `--reduce_ex--()`,  
`--repr--()`, `--setattr--()`, `--sizeof--()`, `--str--()`, `--subclasshook--()`

#### 12.2.2 Properties

Name	Description
<i>Inherited from object</i>	
<code>--class--</code>	

#### 12.2.3 Class Variables

Name	Description
<code>--abstractmethods--</code>	<b>Value:</b> frozenset(['cal_happiness'])



**12.2.4 Instance Variables**

Name	Description
happiness	this abstract method s used to calculate happiness , which will be made concrete in the calling class

## 13 Module q3\_gift

### 13.1 Variables

Name	Description
<code>--package--</code>	<b>Value:</b> None

### 13.2 Class gift

object └─  
          **q3\_gift.gift**

**Known Subclasses:** `essential_gift.essential`, `luxury_gift.luxury`, `utility_gift.utility`

#### 13.2.1 Methods

```
--init--(self, cost=None, value=None, gift_name=None)
```

`x.__init__(...)` initializes x; see `help(type(x))` for signature

Overrides: `object.__init__` extit(inherited documentation)

#### *Inherited from object*

`--delattr--()`, `--format--()`, `--getattrattribute--()`, `--hash--()`, `--new--()`, `--reduce--()`, `--reduce_ex--()`,  
`--repr--()`, `--setattr--()`, `--sizeof--()`, `--str--()`, `--subclasshook--()`

#### 13.2.2 Properties

Name	Description
<i>Inherited from object</i>	
<code>--class--</code>	

#### 13.2.3 Class Variables

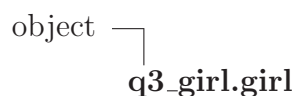
Name	Description
<code>--abstractmethods--</code>	<b>Value:</b> <code>frozenset([])</code>

## 14 Module *q3\_girl*

### 14.1 Variables

Name	Description
<code>--package--</code>	<b>Value:</b> None

### 14.2 Class *girl*



**Known Subclasses:** *choosy\_girl.choosy*, *chossy\_girl.Choosy*, *desperate\_girl.desperate*, *normal\_girl.normal*

#### 14.2.1 Methods

```
--init--(self, name=None, attractiveness=None, intelligence=None,
budget=None)
```

`x.--init--(...)` initializes `x`; see `help(type(x))` for signature

Overrides: `object.--init--` `extit`(inherited documentation)

```
cal_happiness(self, gifts_Array)
```

#### *Inherited from object*

`--delattr--()`, `--format--()`, `--getattr--()`, `--hash--()`, `--new--()`, `--reduce--()`, `--reduce_ex--()`,  
`--repr--()`, `--setattr--()`, `--sizeof--()`, `--str--()`, `--subclasshook--()`

#### 14.2.2 Properties

Name	Description
<i>Inherited from object</i>	
<code>--class--</code>	

#### 14.2.3 Instance Variables

---

Name	Description
happiness	this abstract function is used to calculate happiness , will be made concrete in the calling class

## 15 Module q4

### 15.1 Functions

```
comapare_gifts(gift_object1, gift_object2)
```

```
compare_fitting(couple1, couple2)
```

```
compare_happiness(couple1, couple2)
```

### 15.2 Variables

Name	Description
girl_array	Value: []
boy_array	Value: []
couple_array	Value: []
gift_array	Value: []
row_count_boys	Value: 12
boyReader	Value: csv.reader(boysfile, delimiter=',')
boyslist	Value: [['ram ', ' 5 ', ' 9 ', ' geek ', ' 100'], ['shyam ', ' 7...
row_count_girls	Value: 6
girlReader	Value: csv.reader(girlsfile, delimiter=',')
girlslist	Value: [['radha ', ' 5 ', ' 6 ', ' choosy ', ' 80'], ['tina ', '...
row_count_gifts	Value: 20
giftReader	Value: csv.reader(giftsfile)
giftslist	Value: [['Luxury ', '8 ', '9'], ['Utility', ' 5', ' 5'], ['Essen...
k	Value: 1
d	Value: {'krishna ': 'Laila '}
file	Value: open('ans_file_Happiness_after_breakup.txt', 'w')
ansfilewriter	Value: csv.writer(ansfile)
__package__	Value: None
ansfile	Value: <closed file 'ans_file_Happiness_breakup.txt', mode 'a' a...

*continued on next page*

Name	Description
boysfile	Value: <closed file 'boys.csv', mode 'r' at 0x7fd15a9de540>
giftsfile	Value: <closed file 'gifts.txt', mode 'r' at 0x7fd15a9de6f0>
girlsfile	Value: <closed file 'girls.txt', mode 'r' at 0x7fd15a9de5d0>
hap_boy	Value: 69
hap_girl	Value: 69
i	Value: 0
j	Value: 5
main_cost	Value: 178
row	Value: ['Luxury ', ' 6 ', ' 7']
x	Value: 118
y	Value: 129

## 16 Module q5

### 16.1 Functions

```
cmp_attractiveness(b1, b2)
```

```
cmp_maintenance(g1, g2)
```

```
comapare_gifts(gift_object1, gift_object2)
```

```
compare_fitting(couple1, couple2)
```

```
compare_happiness(couple1, couple2)
```

### 16.2 Variables

Name	Description
girl_array	Value: []
boy_array	Value: []
couple_array	Value: []
gift_array	Value: []
row_count_boys	Value: 12
boyReader	Value: csv.reader(boysfile, delimiter=',')
boyslist	Value: [['ram ', ' 5 ', ' 9 ', ' geek ', ' 100'], ['shyam ', ' 7...
row_count_girls	Value: 6
girlReader	Value: csv.reader(girlsfile, delimiter=',')
girlslist	Value: [['radha ', ' 5 ', ' 6 ', ' choosy ', ' 80'], ['tina ', '...
row_count_gifts	Value: 20
giftReader	Value: csv.reader(giftsfile)
giftslist	Value: [['Luxury ', '8 ', '9'], ['Utility', ' 5', ' 5'], ['Essen...
cnt	Value: 6
k	Value: 4
file	Value: open('ans_file_Happiness.txt', 'w')
ansfilewriter	Value: csv.writer(ansfile)
__package__	Value: None

*continued on next page*

Name	Description
ansfile	<b>Value:</b> <closed file 'ans_file_Happiness.txt', mode 'a' at 0x7fd1...
boysfile	<b>Value:</b> <closed file 'boys.csv', mode 'r' at 0x7fd15a9de810>
flag	<b>Value:</b> 0
giftsfile	<b>Value:</b> <closed file 'gifts.txt', mode 'r' at 0x7fd15a9de930>
girlsfile	<b>Value:</b> <closed file 'girls.txt', mode 'r' at 0x7fd15a9de9c0>
hap_boy	<b>Value:</b> 69
hap_girl	<b>Value:</b> 69
i	<b>Value:</b> 3
j	<b>Value:</b> 19
main_cost	<b>Value:</b> 178
row	<b>Value:</b> ['Luxury ', ' 6 ', ' 7']
x	<b>Value:</b> 118
y	<b>Value:</b> 129



## 17 Module q6

### 17.1 Functions

```
compare_fitting(couple1, couple2)
```

```
compare_happiness(couple1, couple2)
```

```
comapare_gifts(gift_object1, gift_object2)
```

### 17.2 Variables

Name	Description
girl_array	Value: []
boy_array	Value: []
couple_array	Value: []
gift_array	Value: []
row_count_boys	Value: 12
boyReader	Value: csv.reader(boysfile, delimiter=',')
boyslist	Value: [['ram ', ' 5 ', ' 9 ', ' geek ', ' 100'], ['shyam ', ' 7...
row_count_girls	Value: 6
girlReader	Value: csv.reader(girlsfile, delimiter=',')
girlslist	Value: [['radha ', ' 5 ', ' 6 ', ' choosy ', ' 80'], ['tina ', '...
row_count_gifts	Value: 20
giftReader	Value: csv.reader(giftsfile)
giftslist	Value: [['Luxury ', ' 8 ', ' 9'], ['Utility', ' 5', ' 5'], ['Essen...
d	Value: {'krishna ': 'Laila ', 'ram ': 'tina '}
t	Value: 300
i	Value: 2
k	Value: 3
file	Value: open('ans_file_Happiness_after_breakup.txt', 'w')
ansfilewriter	Value: csv.writer(ansfile)
--package--	Value: None

*continued on next page*

Name	Description
ansfile	<b>Value:</b> <closed file 'ans_file_Happiness_breakup.txt', mode 'a' a...>
boysfile	<b>Value:</b> <closed file 'boys.csv', mode 'r' at 0x7fd15a9deb70>
giftsfile	<b>Value:</b> <closed file 'gifts.txt', mode 'r' at 0x7fd15a9ded20>
girlsfile	<b>Value:</b> <closed file 'girls.txt', mode 'r' at 0x7fd15a9dec90>
hap_boy	<b>Value:</b> 69
hap_girl	<b>Value:</b> 69
j	<b>Value:</b> 5
k1	<b>Value:</b> 3
main_cost	<b>Value:</b> 178
row	<b>Value:</b> ['Luxury ', ' 6 ', ' 7']
x	<b>Value:</b> 118
y	<b>Value:</b> 129
z	<b>Value:</b> 299

## 18 Module q7

### 18.1 Variables

Name	Description
girl_array	Value: []
boy_array	Value: []
couple_array	Value: []
gift_array	Value: []
row_count_boys	Value: 12
boyReader	Value: csv.reader(boysfile, delimiter=',')
boyslist	Value: [['ram ', ' 5 ', ' 9 ', ' geek ', ' 100'], ['shyam ', ' 7...
row_count_girls	Value: 6
girlReader	Value: csv.reader(girlsfile, delimiter=',')
girlslist	Value: [['radha ', ' 5 ', ' 6 ', ' choosy ', ' 80'], ['tina ', '...
row_count_gifts	Value: 0
ansfilewriter	Value: csv.writer(ansfile)
k	Value: 1
store	Value: sorted()
couple_array_store	Value: []
__package__	Value: None
ansfile	Value: <closed file 'ans_file_couples.txt', mode 'w' at 0x7fd15a...
boysfile	Value: <closed file 'boys.csv', mode 'r' at 0x7fd15a9dedb0>
girlsfile	Value: <closed file 'girls.txt', mode 'r' at 0x7fd15a9def60>
i	Value: 3
j	Value: 5
row	Value: ['Juliet ', ' 7 ', ' 8 ', ' normal ', ' 176']

## 19 Module q7\_algo

### 19.1 Variables

Name	Description
<code>__package__</code>	<b>Value:</b> None

### 19.2 Class algorithm

object └─ **q7\_algo.algorithm**

**Known Subclasses:** q7\_hash\_table.hash\_table, q7\_sorted\_array.sorted

#### 19.2.1 Methods

**`__init__(self)`**

x.`__init__`(...) initializes x; see `help(type(x))` for signature

Overrides: object.`__init__` extit(inherited documentation)

**`algo_applier(self)`**

*Inherited from object*

`__delattr__()`, `__format__()`, `__getattribute__()`, `__hash__()`, `__new__()`, `__reduce__()`, `__reduce_ex__()`,  
`__repr__()`, `__setattr__()`, `__sizeof__()`, `__str__()`, `__subclasshook__()`

#### 19.2.2 Properties

Name	Description
<i>Inherited from object</i>	
<code>__class__</code>	

#### 19.2.3 Class Variables

Name	Description
<code>__abstractmethods__</code>	<b>Value:</b> frozenset(['algo_applier'])

**19.2.4 Instance Variables**

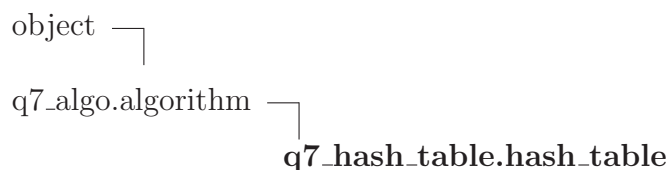
Name	Description
array_of_couple	this is abstract method , ehich will be made concrete in child method that applies it

## 20 Module *q7\_hash\_table*

### 20.1 Variables

Name	Description
<code>__package__</code>	<b>Value:</b> None

### 20.2 Class *hash\_table*



#### 20.2.1 Methods

**`__init__(self)`**  
`x.__init__(...)` initializes x; see `help(type(x))` for signature  
 Overrides: `object.__init__` `exitit`(inherited documentation)

**`algo_applier(self, array_of_couples)`**  
 Overrides: `q7_algo.algorithm.algo_applier`

#### *Inherited from object*

`__delattr__()`, `__format__()`, `__getattr__()`, `__hash__()`, `__new__()`, `__reduce__()`, `__reduce_ex__()`,  
`__repr__()`, `__setattr__()`, `__sizeof__()`, `__str__()`, `__subclasshook__()`

#### 20.2.2 Properties

Name	Description
<i>Inherited from object</i>	
<code>__class__</code>	

#### 20.2.3 Class Variables

*continued on next page*

Name	Description
------	-------------

Name	Description
<code>__abstractmethods__</code>	<b>Value:</b> <code>frozenset([])</code>

#### 20.2.4 Instance Variables

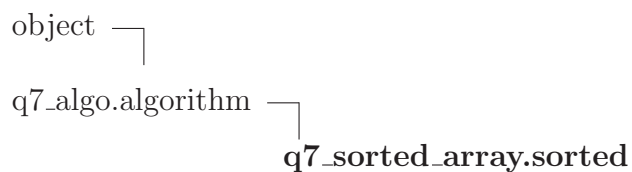
Name	Description
<i>Inherited from <code>q7_algo.algorithm</code> (Section 19.2)</i>	
<code>array_of_couple</code>	

## 21 Module q7\_sorted\_array

### 21.1 Variables

Name	Description
<code>--package--</code>	<b>Value:</b> None

### 21.2 Class sorted



#### 21.2.1 Methods

**`--init--(self)`**

`x.--init--(...)` initializes x; see `help(type(x))` for signature

Overrides: `object.--init--` `exitit`(inherited documentation)

**`cmp(couple_1, couple_2)`**

**`algo_applier(self, array_of_couples)`**

Overrides: `q7_algo.algorithm.algo_applier`

#### *Inherited from object*

`--delattr--()`, `--format--()`, `--getattr--()`, `--hash--()`, `--new--()`, `--reduce--()`, `--reduce_ex--()`,  
`--repr--()`, `--setattr--()`, `--sizeof--()`, `--str--()`, `--subclasshook--()`

#### 21.2.2 Properties

Name	Description
<i>Inherited from object</i>	
<code>--class--</code>	

#### 21.2.3 Class Variables



Name	Description
<code>__abstractmethods__</code>	<b>Value:</b> <code>frozenset([])</code>

#### 21.2.4 Instance Variables

Name	Description
<i>Inherited from <code>q7_algo.algorithm</code> (Section 19.2)</i>	
<code>array_of_couple</code>	

## **22   Script script-ans\_file\_Compatibility.txt**

## **23   Script script-ans\_file\_Happiness\_after\_breakup.txt**

## **24   Script script-ans\_file\_Happiness\_breakup.txt**

## **25   Script script-ans\_file\_Happiness.txt**

## **26   Script script-ans\_file\_couples\_q7.txt**

## **27   Script script-ans\_file\_couples.txt**

## 28 Script script-boys\_csv



## 29 Script script-gifting\_log\_q9.txt

## 30 Script script-gifts.txt

## 31 Script script-girls.txt

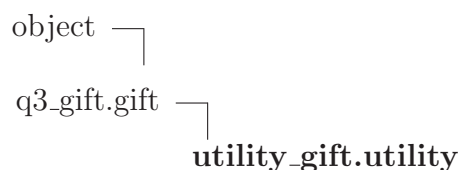
## **32   Script script-log.txt**

## 33 Module utility\_gift

### 33.1 Variables

Name	Description
<code>--package--</code>	<b>Value:</b> None

### 33.2 Class utility



#### 33.2.1 Methods

**`--init--`**(*self*, *utility\_value*=None, *utility\_class*=None, *cost*=None, *value*=None, *gift\_name*=None)

`x.--init--(...)` initializes x; see `help(type(x))` for signature

Overrides: `object.--init--` `exitit`(inherited documentation)

#### *Inherited from object*

`--delattr--()`, `--format--()`, `--getattrattribute--()`, `--hash--()`, `--new--()`, `--reduce--()`, `--reduce_ex--()`, `--repr--()`, `--setattr--()`, `--sizeof--()`, `--str--()`, `--subclasshook--()`

#### 33.2.2 Properties

Name	Description
<i>Inherited from object</i>	
<code>--class--</code>	

#### 33.2.3 Class Variables

Name	Description
<i>Inherited from q3_gift.gift (Section 13.2)</i>	
<code>--abstractmethods--</code>	

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