# Question10

# API Documentation

# April 10, 2017

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Class choosy Module choosy\_girl

## 1 Module choosy\_girl

### 1.1 Variables

Name	Description
package	Value: None

### 1.2 Class choosy

```
object — q3_girl.girl — choosy_girl.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__ extit(inherited documentation)
```

```
cal_happiness(self, gifts_array)
Overrides: q3_girl.girl.cal_happiness
```

### Inherited from object

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

#### 1.2.2 Properties

Name	Description
Inherited from object	
class	

#### 1.2.3 Instance Variables

Name			Des	scription		
typee	this	fucnction	will	calculate	happpiness	for
	choo	sy girl obje	ect			
Inherited from q3_girl.girl (S	Section	n 16.2)				

 $continued\ on\ next\ page$ 

Class choosy Module choosy\_girl

Name	Description
happiness	

Class Choosy Module chossy\_girl

# 2 Module chossy\_girl

### 2.1 Variables

Name	Description
_package_	Value: None

### 2.2 Class Choosy

```
object —
q3_girl.girl —
chossy_girl.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__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __repr__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

### 2.2.2 Properties

Name	Description
Inherited from object	
_class	

### 2.2.3 Instance Variables

Class Choosy Module chossy\_girl

Name	Description
Inherited from q3_girl.girl (S	fection 16.2)
happiness	

# 3 Module couple\_maker

### 3.1 Variables

Name	Description
_package_	Value: 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__ extit(inherited documentation)
```

# Inherited from object

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

### 3.2.2 Properties

Name	Description
Inherited from object	
class	

## 4 Module desperate\_girl

### 4.1 Variables

Name	Description
package	Value: None

### 4.2 Class desperate

```
object — q3_girl.girl — desperate_girl.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__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __repr__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

### 4.2.2 Properties

Name	Description
Inherited from object	
_class	

### 4.2.3 Instance Variables

Name	Description
typee	this function will calculate happiness for desper-
	ate girl object
Inherited from q3_girl.girl (Section 16.2)	
happiness	

# 5 Module essential\_gift

### 5.1 Variables

Name	Description
_package_	Value: None

### 5.2 Class essential

```
object —
q3_gift.gift —
essential_gift.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__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __repr__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

### 5.2.2 Properties

Name	Description
Inherited from object	
class	

Name	Description
Inherited from q3_gift.gift (S	ection 15.2)
$\_$ abstractmethods $\_$	

Class geek Module geek\_boy

## 6 Module geek\_boy

### 6.1 Variables

Name	Description
_package_	Value: None

### 6.2 Class geek

```
object — q3_boy.boy — geek_boy.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__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __repr__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

### 6.2.2 Properties

Name	Description
Inherited from object	
class	

Class geek\_boy

Name	Description
_abstractmethods_	Value: frozenset([])

### 6.2.4 Instance Variables

Name	Description
typee	this function is used to calculate happiness of
	geek boy type object
Inherited from q3_boy.boy (S	ection 14.2)
happiness	

# 7 Module generous\_boy

### 7.1 Variables

Name	Description
_package_	Value: None

### 7.2 Class generous

```
object — q3_boy.boy — generous_boy.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, intellligence_girl)

Overrides: q3_boy.boy.cal_happiness
```

# Inherited from object

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

### 7.2.2 Properties

Name	Description
Inherited from object	
_class	

Name	Description
_abstractmethods_	Value: frozenset([])

### 7.2.4 Instance Variables

Name	Description
typee	this function is used to calculate happiness for
	generous object type
Inherited from q3_boy.boy (Section 14.2)	
happiness	

Class luxury Module luxury\_gift

## 8 Module luxury\_gift

### 8.1 Variables

Name	Description
_package_	Value: None

### 8.2 Class luxury

```
object —
q3_gift.gift —
luxury_gift.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

### 8.2.2 Properties

Name	Description
Inherited from object	
class	

Name	Description
Inherited from q3_gift.gift (Section 15.2)	
$_{-}$ abstractmethods $_{-}$	

Class miser Module miser\_boy

# 9 Module miser\_boy

### 9.1 Variables

Name	Description
_package_	Value: None

### 9.2 Class miser

```
object —
q3_boy.boy —
miser_boy.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__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __repr__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

### 9.2.2 Properties

Name	Description
Inherited from object	
_class	

Class miser

Module miser\_boy

Name	Description
_abstractmethods_	Value: frozenset([])

### 9.2.4 Instance Variables

Name	Description
typee	this function will calculate happiness for miser
	boy object
Inherited from q3_boy.boy (Section 14.2)	
happiness	

Class normal Module normal\_girl

# 10 Module normal\_girl

### 10.1 Variables

Name	Description
package	Value: None

### 10.2 Class normal

```
object —
q3_girl.girl —
normal_girl.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__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __repr__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

### 10.2.2 Properties

Name	Description
Inherited from object	
_class	

### 10.2.3 Instance Variables

Class normal Module normal\_girl

Name	Description
Inherited from q3_girl.girl (Section 16.2)	
happiness	

# 11 Module q10

# 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	<pre>Value: csv.reader(boysfile, delimiter= ',')</pre>
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 ', '
k	Value: 4
row_count_gifts	Value: 20
giftReader	Value: csv.reader(giftsfile)
giftslist	Value: [['Luxury ', '8 ', '9'],
	['Utility', ' 5', ' 5'], ['Essen
file	Value: open('ans_file_Happiness.txt',
	'w')
ansfilewriter	Value: csv.writer(ansfile)
package	Value: None
ansfile	Value: <closed file<="" td=""></closed>
	'ans_file_Happiness.txt', mode 'a' at
	0x7f81
boysfile	Value: <closed 'boys.csv',="" file="" mode<="" td=""></closed>
	'r' at 0x7f815d8da150>

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Variables Module q10

Name	Description
gift_store	Value: <q10_random.random1 at<="" object="" th=""></q10_random.random1>
	0x7f815d8d4610>
giftsfile	Value: <closed 'gifts.txt',="" file="" mode<="" th=""></closed>
	'r' at 0x7f815d8da4b0>
girlsfile	Value: <closed 'girls.txt',="" file="" mode<="" th=""></closed>
	'r' at 0x7f815d8da420>
hap_boy	Value: 69
hap_girl	Value: 69
i	Value: 3
j	Value: 19
main_cost	Value: 178
random_boys	Value: <q10_random.random1 at<="" object="" th=""></q10_random.random1>
	0x7f815d8d4050>
row	Value: ['Luxury ', ' 6 ', ' 7']
X	Value: 118
У	Value: 129

Class random1 Module q10\_random

# 12 Module q10\_random

### 12.1 Variables

Name	Description
_package_	Value: None

### 12.2 Class random1

```
\begin{array}{c} \text{object} & \neg \\ & q10\_random.random1 \end{array}
```

### 12.2.1 Methods

```
__init__(self)

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

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

 $\mathbf{random\_of\_n}(\mathit{self}, \mathit{array}, k)$ 

### Inherited from object

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

### 12.2.2 Properties

Name	Description
Inherited from object	
class	

# 13 Module q3

# 13.1 Functions

```
comapare_gifts(gift_object1, gift_object2)
compare_fitting(couple1, couple2)
```

 $compare\_happiness(couple1, couple2)$ 

## 13.2 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<="" td=""></closed>
	'ans_file_Happiness.txt', mode 'a' at
	0x7f81
boysfile	Value: <closed 'boys.csv',="" file="" mode<="" td=""></closed>
	'r' at 0x7f815d8da540>

 $continued\ on\ next\ page$ 

Variables Module q3

Name	Description
giftsfile	Value: <closed 'gifts.txt',="" file="" mode<="" th=""></closed>
	'r' at 0x7f815d8da780>
girlsfile	Value: <closed 'girls.txt',="" file="" mode<="" th=""></closed>
	'r' at 0x7f815d8da660>
hap_boy	Value: 69
hap_girl	Value: 69
i	Value: 3
j	Value: 19
main_cost	Value: 178
row	Value: ['Luxury ', ' 6 ', ' 7']
X	Value: 118
У	Value: 129

Class boy Module q3\_boy

## 14 Module q3\_boy

### 14.1 Variables

Name	Description
package	Value: None

### 14.2 Class boy

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

#### 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)
```

 ${\bf cal\_happiness}(\textit{self}, \textit{gifts\_Array}, \textit{happiness\_of\_girl}, \textit{intelligence\_girl})$ 

### Inherited from object

### 14.2.2 Properties

Name	Description
Inherited from object	
_class	

Name	Description
$\_$ abstractmethods $\_$	Value: frozenset(['cal_happiness'])

Class boy Module q3\_boy

### 14.2.4 Instance Variables

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

Class gift Module q3\_gift

## 15 Module q3\_gift

### 15.1 Variables

Name	Description
package	Value: None

### 15.2 Class gift

Known Subclasses: essential\_gift.essential, luxury\_gift.luxury, utility\_gift.utility

#### 15.2.1 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__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __repr__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

### 15.2.2 Properties

Name	Description
Inherited from object	
_class	

Name	Description
_abstractmethods_	Value: frozenset([])

Class girl Module q3\_girl

# 16 Module q3\_girl

### 16.1 Variables

Name	Description
package	Value: None

### 16.2 Class girl

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

### 16.2.1 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)
```

### Inherited from object

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

### 16.2.2 Properties

Name	Description
Inherited from object	
class	

#### 16.2.3 Instance Variables

Class girl Module q3\_girl

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

# 17 Module q4

# 17.1 Functions

```
 \begin{aligned} & \mathbf{comapare\_gifts}(gift\_object1, \ gift\_object2) \\ & \mathbf{compare\_fitting}(couple1, \ couple2) \end{aligned}
```

 $compare\_happiness(couple1, couple2)$ 

## 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
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<="" td=""></closed>
	'ans_file_Happiness_breakup.txt', mode
	'a' a

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Variables Module q4

Name	Description
boysfile	Value: <closed 'boys.csv',="" file="" mode<="" th=""></closed>
	'r' at 0x7f815d8da930>
giftsfile	Value: <closed 'gifts.txt',="" file="" mode<="" th=""></closed>
	'r' at 0x7f815d8daae0>
girlsfile	Value: <closed 'girls.txt',="" file="" mode<="" th=""></closed>
	'r' at 0x7f815d8da9c0>
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
У	Value: 129

# $18 \quad Module \ q5$

## 18.1 Functions

```
\begin{array}{c} \mathbf{cmp\_attractiveness}(b1,\,b2) \\ \hline \mathbf{cmp\_maintenance}(g1,\,g2) \\ \hline \mathbf{comapare\_gifts}(gift\_object1,\,gift\_object2) \\ \hline \mathbf{compare\_fitting}(couple1,\,couple2) \\ \hline \end{array}
```

 $compare\_happiness(couple1, couple2)$ 

### 18.2 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

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Variables Module q5

Name	Description
ansfile	Value: <closed file<="" td=""></closed>
	'ans_file_Happiness.txt', mode 'a' at
	0x7f81
boysfile	Value: <closed 'boys.csv',="" file="" mode<="" th=""></closed>
	'r' at 0x7f815d8dac00>
flag	Value: 0
giftsfile	Value: <closed 'gifts.txt',="" file="" mode<="" th=""></closed>
	'r' at 0x7f815d8dad20>
girlsfile	Value: <closed 'girls.txt',="" file="" mode<="" th=""></closed>
	'r' at 0x7f815d8dadb0>
hap_boy	Value: 69
hap_girl	Value: 69
i	Value: 3
j	Value: 19
main_cost	Value: 178
row	Value: ['Luxury ', ' 6 ', ' 7']
X	Value: 118
У	Value: 129

# 19 Module q6

# 19.1 Functions

```
compare_fitting(couple1, couple2)
compare_happiness(couple1, couple2)
comapare_gifts(gift_object1, gift_object2)
```

## 19.2 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	<pre>Value: csv.reader(girlsfile, delimiter=    ',')</pre>
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  Value: {'krishna ': 'Laila ', 'ram ':
d	
	'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

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Variables Module q6

Name	Description
ansfile	Value: <closed file<="" th=""></closed>
	'ans_file_Happiness_breakup.txt', mode
	'a' a
boysfile	Value: <closed 'boys.csv',="" file="" mode<="" th=""></closed>
	'r' at 0x7f815d8daf60>
giftsfile	Value: <closed 'gifts.txt',="" file="" mode<="" th=""></closed>
	'r' at 0x7f815d5bc150>
girlsfile	Value: <closed 'girls.txt',="" file="" mode<="" th=""></closed>
	'r' at 0x7f815d5bc0c0>
hap_boy	Value: 69
hap_girl	Value: 69
j	Value: 5
k1	Value: 3
main_cost	Value: 178
row	Value: ['Luxury ', ' 6 ', ' 7']
X	Value: 118
У	Value: 129
Z	Value: 299

Variables Module q7

# 20 Module q7

## 20.1 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<="" td=""></closed>
	'ans_file_couples.txt', mode 'w' at
	0x7f815d
boysfile	Value: <closed 'boys.csv',="" file="" mode<="" td=""></closed>
	'r' at 0x7f815d5bc1e0>
girlsfile	Value: <closed 'girls.txt',="" file="" mode<="" td=""></closed>
	'r' at 0x7f815d5bc4b0>
i	Value: 3
j	Value: 5
row	Value: ['Juliet ', ' 7 ', ' 8 ', '
	normal ', ' 176']

Class algorithm Module q7\_algo

## 21 Module q7\_algo

### 21.1 Variables

Name	Description
package	Value: None

## 21.2 Class algorithm

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

#### 21.2.1 Methods

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

```
\mathbf{algo\_applier}(self)
```

## Inherited from object

## 21.2.2 Properties

Name	Description
Inherited from object	
class	

## 21.2.3 Class Variables

Name	Description
_abstractmethods_	Value: frozenset(['algo_applier'])

Class algorithm Module q7\_algo

## 21.2.4 Instance Variables

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

## 22 Module $q7_hash_table$

### 22.1 Variables

Name	Description
package	Value: None

### 22.2 Class hash\_table

```
object —
q7_algo.algorithm —
q7_hash_table.hash_table
```

### 22.2.1 Methods

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

```
      algo_applier(self, array_of_couples)

      Overrides: q7_algo.algorithm.algo_applier
```

## Inherited from object

### 22.2.2 Properties

Name	Description
Inherited from object	
_class	

### 22.2.3 Class Variables

continued on next page

Name	Description
Name	Description
_abstractmethods	Value: frozenset([])

## 22.2.4 Instance Variables

Name	Description
Inherited from q7_algo.algorithm (Section 21.2)	
array_of_couple	

## 23 Module q7\_sorted\_array

### 23.1 Variables

Name	Description
package	Value: None

### 23.2 Class sorted

```
object —
q7_algo.algorithm —
q7_sorted_array.sorted
```

### 23.2.1 Methods

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

```
\mathbf{cmp}(couple\_1, couple\_2)
```

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

## Inherited from object

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

## 23.2.2 Properties

Name	Description
Inherited from object	
_class	

#### 23.2.3 Class Variables

Name	Description
_abstractmethods	Value: frozenset([])

## 23.2.4 Instance Variables

Name	Description
Inherited from q7_algo.algorithm (Section 21.2)	
array_of_couple	

## 24 Module q9

## 24.1 Functions

```
\mathbf{comapare\_gifts}(gift\_object1,\ gift\_object2)
```

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

 $compare\_happiness(couple1, couple2)$ 

## 24.2 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 ', '
k	Value: 4
row_count_gifts	Value: 20
giftReader	Value: csv.reader(giftsfile)
giftslist	Value: [['Luxury ', '8 ', '9'],
	['Utility', ' 5', ' 5'], ['Essen
file	Value: open('ans_file_Happiness.txt',
	'w')
ansfilewriter	Value: csv.writer(ansfile)
package	Value: None
ansfile	Value: <closed file<="" td=""></closed>
	'ans_file_Happiness.txt', mode 'a' at
	0x7f81
best_k_boys	Value: <q9_template_best_k.template< td=""></q9_template_best_k.template<>
	object at 0x7f815d52a810>

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Variables Module q9

Name	Description
boysfile	Value: <closed 'boys.csv',="" file="" mode<="" th=""></closed>
	'r' at 0x7f815d5bc390>
gift_store	Value: <q9_template_best_k.template< th=""></q9_template_best_k.template<>
	object at 0x7f815d52ae50>
giftsfile	Value: <closed 'gifts.txt',="" file="" mode<="" th=""></closed>
	'r' at 0x7f815d5bc660>
girlsfile	Value: <closed 'girls.txt',="" file="" mode<="" th=""></closed>
	'r' at 0x7f815d5bc540>
hap_boy	Value: 69
hap_girl	Value: 69
i	Value: 3
j	Value: 19
main_cost	Value: 178
row	Value: ['Luxury ', ' 6 ', ' 7']
X	Value: 118
У	Value: 129

## 25 Module $q9\_template\_best\_k$

## 25.1 Variables

Name	Description
package	Value: None

## 25.2 Class template

```
object — q9_template_best_k.template
```

#### 25.2.1 Methods

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

 $\mathbf{cmp\_boy}(boy\_1,\ boy\_2)$ 

 $\mathbf{cmp\_girl}(girl\_1, girl\_2)$ 

 $\mathbf{cmp\_gift}(gift\_object1,\ gift\_object2)$ 

 $\mathbf{best\_k}(self, k, b\_g\_gi, array)$ 

## Inherited from object

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

### 25.2.2 Properties

Name	Description
Inherited from object	
_class	

## 25.2.3 Instance Variables

Name	Description	
kj	this function compares boy according to their	
	values of attractiveness	

 ${\bf 26}\quad Script\ script-ans\_file\_Compatibility\_txt$ 

 ${\bf 27} \quad Script \; script-ans\_file\_Happiness\_after\_breakup\_txt$ 

 ${\bf 28} \quad {\bf Script\ script\hbox{-}ans\_file\_Happiness\_breakup\_txt}$ 

 ${\bf 29}\quad {\bf Script\ script\mbox{-}ans\_file\_Happiness\_txt}$ 

 $30 \quad Script \; script-ans\_file\_couples\_q7\_txt$ 

 ${\bf 31}\quad {\bf Script\ script\hbox{-}ans\_file\_couples\_txt}$ 

# ${\bf 32}\quad {\bf Script\ script\text{-}boys\_csv}$

 $33 \quad Script \ script-gifting\_log\_q9\_txt$ 

# $34 \quad Script \ script-gifts\_txt$

# ${\bf 35}\quad {\bf Script\ script\hbox{-}girls\_txt}$

# ${\bf 36}\quad {\bf Script\ script\hbox{-}log\_txt}$

## 37 Script script-untitled

## 37.1 Variables

Name	Description
_package_	Value: None

Class utility Module utility\_gift

## 38 Module utility\_gift

### 38.1 Variables

Name	Description
package	Value: None

## 38.2 Class utility

```
object \( \bigcap \) \( q3_\text{gift.gift} \( \bigcap \) \( \text{utility_gift.utility} \)
```

## 38.2.1 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__ extit(inherited documentation)
```

## Inherited from object

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

### 38.2.2 Properties

Name	Description
Inherited from object	
_class	

#### 38.2.3 Class Variables

Name	Description
Inherited from q3_gift.gift (Section 15.2)	
$\_$ abstractmethods $\_$	

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