

PPL Assignment - Question3

API Documentation

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Contents

Contents	1
1 Module ppl-assignment-CosmicCoder96.q3.boy'	2
1.1 Variables	2
1.2 Class Boy	2
1.2.1 Methods	2
1.3 Class Geek	2
1.3.1 Methods	2
1.4 Class Generous	3
1.4.1 Methods	3
1.5 Class Miser	3
1.5.1 Methods	3
2 Module ppl-assignment-CosmicCoder96.q3.couple'	4
2.1 Variables	4
2.2 Class Boy	4
2.2.1 Methods	4
2.3 Class Couple	4
2.3.1 Methods	4
2.4 Class Girl	4
2.4.1 Methods	5
3 Module ppl-assignment-CosmicCoder96.q3.gift'	6
3.1 Variables	6
3.2 Class Gift	6
3.2.1 Methods	6
3.3 Class essentialGift	6
3.3.1 Methods	6
3.4 Class luxuryGift	6
3.4.1 Methods	7
3.5 Class utilityGift	7
3.5.1 Methods	7
4 Module ppl-assignment-CosmicCoder96.q3.girl	8
4.1 Variables	8
4.2 Class Girl	8
4.2.1 Methods	8

4.3	Class Choosy	8
4.3.1	Methods	8
4.4	Class Normal	9
4.4.1	Methods	9
4.5	Class Desperate	9
4.5.1	Methods	9
5	Module ppl-assignment-CosmicCoder96.q3.q3'	10
5.1	Functions	10
5.2	Variables	10
6	Module ppl-assignment-CosmicCoder96.q3.utility	11
6.1	Functions	11
6.2	Variables	11
7	Package ppl-assignment-CosmicCoder96.q3'	12
7.1	Modules	12
7.2	Variables	12
8	Script script-boys_list.txt	13
9	Script script-couple_list.txt	14
10	Script script-gift_list.txt	15
11	Script script-girls_list.txt	16

1 Module ppl-assignment-CosmicCoder96.q3.boy'

1.1 Variables

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

1.2 Class Boy

Known Subclasses: ppl-assignment-CosmicCoder96.q3.boy.Geek, ppl-assignment-CosmicCoder96.q3.boy.Generous, ppl-assignment-CosmicCoder96.q3.boy.Miser

:param boy: a boy object :param name: name attribute of the boy object :param attractiveness: attractiveness of the boy

1.2.1 Methods

```
--init__(self, name, attractiveness, budget, intelligence_level, min_attraction_requirement,
committed, happiness)
```

```
commit(self)
```

```
isCommitted(self)
```

1.3 Class Geek

```
ppl-assignment-CosmicCoder96.q3.boy.Boy └─ ppl-assignment-CosmicCoder96.q3.boy.Geek
```

1.3.1 Methods

```
--init__(self, name, attractiveness, budget, intelligence_level, min_attraction_requirement,
committed, happiness)
```

Overrides: ppl-assignment-CosmicCoder96.q3.boy.Boy.--init--

```
getHappiness(self, girl, total_gifts)
```

Inherited from ppl-assignment-CosmicCoder96.q3.boy.Boy(Section 2.2)

commit(), isCommitted()

1.4 Class Generous



1.4.1 Methods

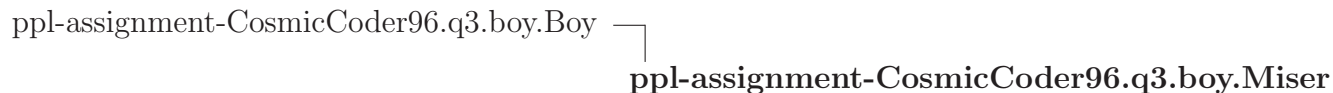
<code>__init__</code> (<i>self</i> , <i>name</i> , <i>attractiveness</i> , <i>budget</i> , <i>intelligence_level</i> , <i>min_attraction_requirement</i> , <i>committed</i> , <i>happiness</i>) Overrides: ppl-assignment-CosmicCoder96.q3.boy.Boy.__init__
--

<code>getHappiness</code> (<i>self</i> , <i>girl</i> , <i>total_gifts</i>)

Inherited from ppl-assignment-CosmicCoder96.q3.boy.Boy(Section 2.2)

`commit()`, `isCommitted()`

1.5 Class Miser



1.5.1 Methods

<code>__init__</code> (<i>self</i> , <i>name</i> , <i>attractiveness</i> , <i>budget</i> , <i>intelligence_level</i> , <i>min_attraction_requirement</i> , <i>committed</i> , <i>happiness</i>) Overrides: ppl-assignment-CosmicCoder96.q3.boy.Boy.__init__
--

<code>getHappiness</code> (<i>self</i> , <i>girl</i> , <i>total_gifts</i>)

Inherited from ppl-assignment-CosmicCoder96.q3.boy.Boy(Section 2.2)

`commit()`, `isCommitted()`

2 Module ppl-assignment-CosmicCoder96.q3.couple'

2.1 Variables

Name	Description
<code>--package--</code>	Value: 'ppl-assignment-CosmicCoder96.q3'

2.2 Class Boy

Known Subclasses: ppl-assignment-CosmicCoder96.q3.boy.Geek, ppl-assignment-CosmicCoder96.q3.boy.Miser

:param boy: a boy object :param name: name attribute of the boy object :param attractiveness: attractiveness of the boy

2.2.1 Methods

```
--init--(self, name, attractiveness, budget, intelligence_level,
min_attraction_requirement, committed, happiness)
```

```
commit(self)
```

```
isCommitted(self)
```

2.3 Class Couple

2.3.1 Methods

```
--init--(self, boy, girl, happiness, compatibility)
```

2.4 Class Girl

Known Subclasses: ppl-assignment-CosmicCoder96.q3.girl.Choosy, ppl-assignment-CosmicCoder96.q3.girl.Normal

2.4.1 Methods

```
__init__(self, name, attractiveness, maintainance_budget, intelligence_level,  
criterion, committed, happiness)
```

```
isCommitted(self)
```

```
commit(self)
```

3 Module ppl-assignment-CosmicCoder96.q3.gift'

3.1 Variables

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

3.2 Class Gift

Known Subclasses: ppl-assignment-CosmicCoder96.q3.gift.essentialGift, ppl-assignment-CosmicCoder96.q3.gift.luxuryGift, ppl-assignment-CosmicCoder96.q3.gift.utilityGift

3.2.1 Methods

```
__init__(self, price, value, used=False)
```

3.3 Class essentialGift

```
ppl-assignment-CosmicCoder96.q3.gift.Gift └─ ppl-assignment-CosmicCoder96.q3.gift.essentialGift
```

3.3.1 Methods

```
__init__(self, price, value, used, Type)  
Overrides: ppl-assignment-CosmicCoder96.q3.gift.Gift.__init__
```

3.4 Class luxuryGift

```
ppl-assignment-CosmicCoder96.q3.gift.Gift └─ ppl-assignment-CosmicCoder96.q3.gift.luxuryGift
```

3.4.1 Methods

`__init__(self, price, value, used, difficulty, rating, Type)`

Overrides: `ppl-assignment-CosmicCoder96.q3.gift.Gift.__init__`

3.5 Class *utilityGift*

`ppl-assignment-CosmicCoder96.q3.gift.Gift` └─ **`ppl-assignment-CosmicCoder96.q3.gift.utilityGift`**

3.5.1 Methods

`__init__(self, price, value, used, utility_value, utility_class, Type)`

Overrides: `ppl-assignment-CosmicCoder96.q3.gift.Gift.__init__`

4 Module ppl-assignment-CosmicCoder96.q3.girl

4.1 Variables

Name	Description
<code>--package--</code>	Value: <code>'ppl-assignment-CosmicCoder96.q3'</code>

4.2 Class Girl

Known Subclasses: `ppl-assignment-CosmicCoder96.q3.girl.Choosy`, `ppl-assignment-CosmicCoder96.q3.girl.Normal`

4.2.1 Methods

```
--init__(self, name, attractiveness, maintainance_budget, intelligence_level,
criterion, committed, happiness)
```

```
isCommitted(self)
```

```
commit(self)
```

4.3 Class Choosy

```
ppl-assignment-CosmicCoder96.q3.girl.Girl └─ ppl-assignment-CosmicCoder96.q3.girl.Choosy
```

4.3.1 Methods

```
--init__(self, name, attractiveness, maintainance_budget, intelligence_level,
criterion, committed, happiness)
```

Overrides: `ppl-assignment-CosmicCoder96.q3.girl.Girl.__init__`

```
getHappiness(self, boy, total_gifts, total_gift_value)
```

Inherited from `ppl-assignment-CosmicCoder96.q3.girl.Girl` (Section 4.2)

`commit()`, `isCommitted()`

4.4 Class Normal



4.4.1 Methods

```
__init__(self, name, attractiveness, maintainance_budget, intelligence_level,
criterion, committed, happiness)
```

Overrides: ppl-assignment-CosmicCoder96.q3.girl.Girl.__init__

```
getHappiness(self, boy, total_gifts, total_gift_value)
```

Inherited from ppl-assignment-CosmicCoder96.q3.girl.Girl(Section 4.2)

commit(), isCommitted()

4.5 Class Desperate



4.5.1 Methods

```
__init__(self, name, attractiveness, maintainance_budget, intelligence_level,
criterion, committed, happiness)
```

Overrides: ppl-assignment-CosmicCoder96.q3.girl.Girl.__init__

```
getHappiness(self, boy, total_gifts, total_gift_value)
```

Inherited from ppl-assignment-CosmicCoder96.q3.girl.Girl(Section 4.2)

commit(), isCommitted()

5 Module *ppl-assignment-CosmicCoder96.q3.q3'*

5.1 Functions

<code>generateBoyList()</code>

<code>generateGirlList()</code>

<code>giveGifts(<i>boy_list</i>, <i>girl_list</i>)</code>

<code>k_most_happy_couples(<i>k</i>, <i>couple_list</i>)</code>

<code>q3()</code>

5.2 Variables

Name	Description
<code>--package--</code>	Value: <code>'ppl-assignment-CosmicCoder96.q3'</code>

6 Module `ppl-assignment-CosmicCoder96.q3.utility`

6.1 Functions

```
randomName(size=6, chars= 'ABCDEFGHIJKLMNOPQRSTUVWXYZ')
```

```
generateBoyList()
```

```
generateGirlList()
```

```
generateGiftList()
```

```
makeCouples(mode, boy_list, girl_list)
```

```
giveGifts(boy_list, girl_list)
```

```
k_most_happy_couples(k, couple_list)
```

```
k_least_happy_couples(couple_list)
```

6.2 Variables

Name	Description
<code>--package--</code>	Value: <code>'ppl-assignment-CosmicCoder96.q3'</code>

7 Package ppl-assignment-CosmicCoder96.q3'

7.1 Modules

- **boy'** (*Section 1, p. 2*)
- **couple'** (*Section 2, p. 4*)
- **gift'** (*Section 3, p. 6*)
- **girl** (*Section 4, p. 8*)
- **q3'** (*Section 5, p. 10*)
- **utility** (*Section 6, p. 11*)

7.2 Variables

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

8 Script script-boys_list.txt

9 Script script-couple_list.txt

10 Script script-gift_list.txt

11 Script script-girls_list.txt

Index

ppl-assignment-CosmicCoder96 (*package*)
 ppl-assignment-CosmicCoder96.q3' (*package*), 12
 ppl-assignment-CosmicCoder96.q3.boy' (*module*), 2–3
 ppl-assignment-CosmicCoder96.q3.couple' (*module*), 4–5
 ppl-assignment-CosmicCoder96.q3.gift' (*module*), 6–7
 ppl-assignment-CosmicCoder96.q3.girl (*module*), 8–9
 ppl-assignment-CosmicCoder96.q3.q3' (*module*), 10
 ppl-assignment-CosmicCoder96.q3.utility (*module*), 11
 ppl-assignment-CosmicCoder96.q3.boy.Boy (*class*), 2, 4
 ppl-assignment-CosmicCoder96.q3.boy.Boy.__init__ (*function*), 2, 4
 ppl-assignment-CosmicCoder96.q3.boy.Boy.commit (*function*), 2, 4
 ppl-assignment-CosmicCoder96.q3.boy.Boy.isCommitted (*function*), 2, 4
 ppl-assignment-CosmicCoder96.q3.boy.Geek (*class*), 2
 ppl-assignment-CosmicCoder96.q3.boy.Geek.getHappiness (*function*), 2
 ppl-assignment-CosmicCoder96.q3.boy.Generous (*class*), 2–3
 ppl-assignment-CosmicCoder96.q3.boy.Generous.getHappiness (*function*), 3
 ppl-assignment-CosmicCoder96.q3.boy.Miser (*class*), 3
 ppl-assignment-CosmicCoder96.q3.boy.Miser.getHappiness (*function*), 3
 ppl-assignment-CosmicCoder96.q3.couple.Couple (*class*), 4
 ppl-assignment-CosmicCoder96.q3.couple.Couple.__init__ (*function*), 4
 ppl-assignment-CosmicCoder96.q3.gift.essentialGift (*class*), 6
 ppl-assignment-CosmicCoder96.q3.gift.Gift (*class*), 6
 ppl-assignment-CosmicCoder96.q3.gift.Gift.__init__ (*function*), 6
 ppl-assignment-CosmicCoder96.q3.gift.luxuryGift (*class*), 6–7
 ppl-assignment-CosmicCoder96.q3.gift.utilityGift (*class*), 7
 ppl-assignment-CosmicCoder96.q3.q3.q3 (*function*), 10
 script-boys_list_txt (*script*), 13
 script-couple_list_txt (*script*), 14
 script-gift_list_txt (*script*), 15
 script-girls_list_txt (*script*), 16