

# PPL Assignment - Question8

API Documentation

April 10, 2017

## Contents

<b>Contents</b>	<b>1</b>
<b>1 Module ppl-assignment-CosmicCoder96.q8.boy'</b>	<b>2</b>
1.1 Variables . . . . .	2
1.2 Class Boy . . . . .	2
1.2.1 Methods . . . . .	2
<b>2 Module ppl-assignment-CosmicCoder96.q8.couple'</b>	<b>3</b>
2.1 Variables . . . . .	3
2.2 Class Boy . . . . .	3
2.2.1 Methods . . . . .	3
2.3 Class Couple . . . . .	3
2.3.1 Methods . . . . .	3
2.4 Class Girl . . . . .	3
2.4.1 Methods . . . . .	3
<b>3 Module ppl-assignment-CosmicCoder96.q8.gift'</b>	<b>4</b>
3.1 Variables . . . . .	4
3.2 Class Gift . . . . .	4
3.2.1 Methods . . . . .	4
3.3 Class essentialGift . . . . .	4
3.3.1 Methods . . . . .	4
3.4 Class luxuryGift . . . . .	4
3.4.1 Methods . . . . .	4
3.5 Class utilityGift . . . . .	5
3.5.1 Methods . . . . .	5
<b>4 Module ppl-assignment-CosmicCoder96.q8.girl</b>	<b>6</b>
4.1 Variables . . . . .	6
4.2 Class Girl . . . . .	6
4.2.1 Methods . . . . .	6
<b>5 Module ppl-assignment-CosmicCoder96.q8.q8'</b>	<b>7</b>
5.1 Functions . . . . .	7
5.2 Variables . . . . .	7
<b>6 Module ppl-assignment-CosmicCoder96.q8.utility</b>	<b>8</b>
6.1 Functions . . . . .	8

---

6.2 Variables . . . . .	8
<b>7 Package ppl-assignment-CosmicCoder96.q8'</b>	<b>9</b>
7.1 Modules . . . . .	9
7.2 Variables . . . . .	9
<b>8 Script script-boys_list.txt</b>	<b>10</b>
<b>9 Script script-couple_list.txt</b>	<b>11</b>
<b>10 Script script-gift_list.txt</b>	<b>12</b>
<b>11 Script script-girls_list.txt</b>	<b>13</b>

# 1 Module ppl-assignment-CosmicCoder96.q8.boy'

## 1.1 Variables

Name	Description
--package--	Value: None

## 1.2 Class Boy

### 1.2.1 Methods

```
_init_(self, name, attractiveness, budget, intelligence_level, min_attraction_requirement,
Type, committed, happiness)
```

```
commit(self)
```

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

```
isCommitted(self)
```

## 2 Module ppl-assignment-CosmicCoder96.q8.couple'

### 2.1 Variables

Name	Description
<code>--package--</code>	<b>Value:</b> <code>'ppl-assignment-CosmicCoder96.q8'</code>

### 2.2 Class Boy

#### 2.2.1 Methods

```
__init__(self, name, attractiveness, budget, intelligence_level, min_attraction_requirement,
Type, committed, happiness)
```

```
commit(self)
```

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

```
isCommitted(self)
```

### 2.3 Class Couple

#### 2.3.1 Methods

```
__init__(self, boy, girl, happiness, compatibility)
```

### 2.4 Class Girl

#### 2.4.1 Methods

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

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

```
isCommitted(self)
```

```
commit(self)
```

### 3 Module ppl-assignment-CosmicCoder96.q8.gift'

#### 3.1 Variables

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

#### 3.2 Class Gift

**Known Subclasses:** ppl-assignment-CosmicCoder96.q8.gift.essentialGift, ppl-assignment-CosmicCoder96.q8.gift.luxuryGift, ppl-assignment-CosmicCoder96.q8.gift.utilityGift

##### 3.2.1 Methods

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

#### 3.3 Class essentialGift

```

ppl-assignment-CosmicCoder96.q8.gift.Gift └─
                                           ppl-assignment-CosmicCoder96.q8.gift.essentialGift

```

##### 3.3.1 Methods

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

Overrides: ppl-assignment-CosmicCoder96.q8.gift.Gift.__init__
```

#### 3.4 Class luxuryGift

```

ppl-assignment-CosmicCoder96.q8.gift.Gift └─
                                           ppl-assignment-CosmicCoder96.q8.gift.luxuryGift

```

##### 3.4.1 Methods

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

Overrides: ppl-assignment-CosmicCoder96.q8.gift.Gift.__init__
```

### 3.5 Class **utilityGift**



#### 3.5.1 Methods

<code>__init__(self, price, value, used, utility_value, utility_class, Type)</code>
---

Overrides: <code>ppl-assignment-CosmicCoder96.q8.gift.Gift.__init__</code>
--

## 4 Module ppl-assignment-CosmicCoder96.q8.girl

### 4.1 Variables

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

### 4.2 Class Girl

#### 4.2.1 Methods

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

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

```
isCommitted(self)
```

```
commit(self)
```

## 5 Module *ppl-assignment-CosmicCoder96.q8.q8'*

### 5.1 Functions

<code>generateBoyList()</code>
--------------------------------

<code>generateGirlList()</code>
---------------------------------

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

<code>q8()</code>
-------------------

<code>valentine(<i>k</i>, <i>couple_list</i>, <i>boy_list</i>, <i>girl_list</i>)</code>
---

### 5.2 Variables

Name	Description
<code>--package--</code>	<b>Value:</b> <code>'ppl-assignment-CosmicCoder96.q8'</code>



## 6 Module `ppl-assignment-CosmicCoder96.q8.utility`

### 6.1 Functions

<code>randomName(<i>size</i>=6, <i>chars</i>='ABCDEFGHIJKLMNOPQRSTUVWXYZ')</code>
---

<code>generateBoyList()</code>
--------------------------------

<code>generateGirlList()</code>
---------------------------------

<code>generateGiftList()</code>
---------------------------------

<code>makeCouples(<i>mode</i>, <i>boy_list</i>, <i>girl_list</i>)</code>
--

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

<code>k_most_happy_couples(<i>couple_list</i>)</code>
---

<code>k_least_happy_couples(<i>couple_list</i>)</code>
--

<code>valentine(<i>k</i>, <i>couple_list</i>, <i>boy_list</i>, <i>girl_list</i>)</code>
---

### 6.2 Variables

Name	Description
<code>_package_</code>	<b>Value:</b> <code>'ppl-assignment-CosmicCoder96.q8'</code>

## 7 Package ppl-assignment-CosmicCoder96.q8'

### 7.1 Modules

- **boy'** (Section 1, p. 2)
- **couple'** (Section 2, p. 3)
- **gift'** (Section 3, p. 4)
- **girl** (Section 4, p. 6)
- **q8'** (Section 5, p. 7)
- **utility** (Section 6, p. 8)

### 7.2 Variables

Name	Description
__package__	<b>Value:</b> 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.q8' (*package*), 9  
  ppl-assignment-CosmicCoder96.q8.boy' (*module*), 2  
  ppl-assignment-CosmicCoder96.q8.couple' (*module*), 3  
  ppl-assignment-CosmicCoder96.q8.gift' (*module*), 4–5  
  ppl-assignment-CosmicCoder96.q8.girl (*module*), 6  
  ppl-assignment-CosmicCoder96.q8.q8' (*module*), 7  
  ppl-assignment-CosmicCoder96.q8.utility (*module*), 8  
ppl-assignment-CosmicCoder96.q8.boy.Boy (*class*), 2–3  
ppl-assignment-CosmicCoder96.q8.boy.Boy.\_\_init\_\_ (*function*), 2, 3  
ppl-assignment-CosmicCoder96.q8.boy.Boy.commit (*function*), 2, 3  
ppl-assignment-CosmicCoder96.q8.boy.Boy.getHappiness (*function*), 2, 3  
ppl-assignment-CosmicCoder96.q8.boy.Boy.isCommitted (*function*), 2, 3  
ppl-assignment-CosmicCoder96.q8.couple.Couple (*class*), 3  
ppl-assignment-CosmicCoder96.q8.couple.Couple.\_\_init\_\_ (*function*), 3  
ppl-assignment-CosmicCoder96.q8.gift.essentialGift (*class*), 4  
ppl-assignment-CosmicCoder96.q8.gift.Gift (*class*), 4  
ppl-assignment-CosmicCoder96.q8.gift.Gift.\_\_init\_\_ (*function*), 4  
ppl-assignment-CosmicCoder96.q8.gift.luxuryGift (*class*), 4  
ppl-assignment-CosmicCoder96.q8.gift.utilityGift (*class*), 4–5  
ppl-assignment-CosmicCoder96.q8.q8.q8 (*function*), 7  
  
script-boys\_list.txt (*script*), 10  
script-couple\_list.txt (*script*), 11  
script-gift\_list.txt (*script*), 12  
script-girls\_list.txt (*script*), 13