

PPL Assignment - Question5

API Documentation

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1 Module ppl-assignment-CosmicCoder96.q5.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.q5.couple'

2.1 Variables

Name	Description
--package--	Value: 'ppl-assignment-CosmicCoder96.q5'

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

Known Subclasses: ppl-assignment-CosmicCoder96.q5.girl.Choosy, ppl-assignment-CosmicCoder96.q5.girl.Desperate, ppl-assignment-CosmicCoder96.q5.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.q5.gift'

3.1 Variables

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

3.2 Class Gift

Known Subclasses: ppl-assignment-CosmicCoder96.q5.gift.essentialGift, ppl-assignment-CosmicCoder96.q5.gift.luxuryGift, ppl-assignment-CosmicCoder96.q5.gift.utilityGift

3.2.1 Methods

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

3.3 Class essentialGift

```

ppl-assignment-CosmicCoder96.q5.gift.Gift └─
                                           ppl-assignment-CosmicCoder96.q5.gift.essentialGift

```

3.3.1 Methods

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

Overrides: ppl-assignment-CosmicCoder96.q5.gift.Gift.__init__
```

3.4 Class luxuryGift

```

ppl-assignment-CosmicCoder96.q5.gift.Gift └─
                                           ppl-assignment-CosmicCoder96.q5.gift.luxuryGift

```

3.4.1 Methods

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

Overrides: ppl-assignment-CosmicCoder96.q5.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.q5.gift.Gift.__init__</code>
--

4 Module *ppl-assignment-CosmicCoder96.q5.girl*

4.1 Variables

Name	Description
<code>--package--</code>	Value: <code>'ppl-assignment-CosmicCoder96.q5'</code>

4.2 Class *Girl*

Known Subclasses: *ppl-assignment-CosmicCoder96.q5.girl.Choosy*, *ppl-assignment-CosmicCoder96.q5.girl.Desperate*, *ppl-assignment-CosmicCoder96.q5.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.q5.girl.Girl └─ ppl-assignment-CosmicCoder96.q5.girl.Choosy
```

4.3.1 Methods

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

Overrides: *ppl-assignment-CosmicCoder96.q5.girl.Girl*.`--init--`

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

*Inherited from *ppl-assignment-CosmicCoder96.q5.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.q5.girl.Girl.__init__

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

Inherited from ppl-assignment-CosmicCoder96.q5.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.q5.girl.Girl.__init__

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

Inherited from ppl-assignment-CosmicCoder96.q5.girl.Girl(Section 4.2)

commit(), isCommitted()

5 Module ppl-assignment-CosmicCoder96.q5.utility

5.1 Functions

```
randomName(size=6, chars=string.ascii_uppercase)
```

```
generateBoyList()
```

```
generateGirlList()
```

```
generateGiftList()
```

```
makeCouples(mode)
```

```
giveGifts()
```

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

5.2 Variables

Name	Description
boyList	Value: []
girlList	Value: []
gift_list	Value: []
couple_list	Value: []
boy_list	Value: generateBoyList()
girl_list	Value: generateGirlList()

6 Package ppl-assignment-CosmicCoder96.q5'

6.1 Modules

- **boy'** (*Section 1, p. 2*)
- **couple'** (*Section 2, p. 3*)
- **gift'** (*Section 3, p. 4*)
- **girl** (*Section 4, p. 6*)

6.2 Variables

Name	Description
--package--	Value: None

7 Script script-boys_list.txt

8 Script script-couple_list.txt

9 Script script-gift_list.txt

10 Script script-girls_list.txt

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