

# Assignment PPL

## API Documentation

March 21, 2017

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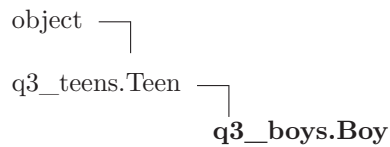
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# 1 Module q3\_boys

## 1.1 Variables

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

## 1.2 Class Boy



boy class for all boys

### 1.2.1 Methods

<b><code>__init__</code></b> ( <i>self, name, atr, gfbudget, intelli, min_atr_req, type</i> )
constructor
Overrides: <code>object.__init__</code>

<b><code>is_elligible</code></b> ( <i>self, mbudget, atr</i> )
checks the elligibility of a given Girl, for the current instance of Boy class
Overrides: <code>q3_teens.Teen.is_elligible</code>

### *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 Class Variables

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

## 2 Module q3\_couple

### 2.1 Variables

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

### 2.2 Class Couple

couple class for all couples

#### 2.2.1 Methods

<code>__init__(self, boy, girl)</code>
constructor

<code>set_happiness(self)</code>
set the happiness of a couple

<code>set_compatibility(self)</code>
set the compatibility of a couple

### 3 Module q3\_driver

#### 3.1 Functions

##### **allocate()**

reads and stores the input from the boys.csv and girls.csv files and then makes the valid couples

##### **calculate\_happiness( $C$ )**

reads and stores the inputs from the gifts.csv file and sorts the gifts in ascending order of price

##### **hp\_miser( $GFT, c$ )**

provides gifting logic for Miser type Boys and sets the Happiness of the committed Boy and Girl and the whole couple, also sets the Compatibility of the couple

##### **hp\_generous( $GFT, c$ )**

provides gifting logic for Generous type Boys and sets the Happiness of the committed Boy and Girl and the whole couple, also sets the Compatibility of the couple

##### **hp\_geek( $GFT, c$ )**

provides gifting logic for Geek type Boys and sets the Happiness of the committed Boy and Girl and the whole couple, also sets the Compatibility of the couple

##### **print\_gifts( $C$ )**

prints all the Gifts gifted by Boyfriend for all the Couples

##### **print\_hc( $C, k$ )**

prints the k most Happy Couples and k most Compatible Couples

#### 3.2 Variables

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

## 4 Module q3\_gifts

### 4.1 Variables

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

### 4.2 Class Gift

gift class for all gifts

#### 4.2.1 Methods

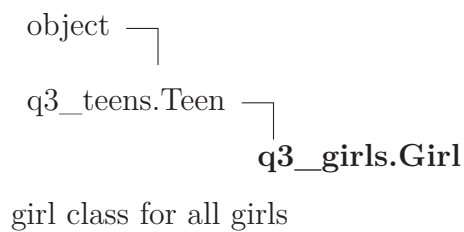
<code>__init__</code> ( <i>self, name, price, value, type</i> )
constructor

## 5 Module q3\_girls

### 5.1 Variables

Name	Description
__package__	Value: None

### 5.2 Class Girl



#### 5.2.1 Methods

<b>__init__</b> ( <i>self, name, atr, mbudget, intelli, type</i> )
constructor
Overrides: object.__init__

<b>is_elligible</b> ( <i>self, gfbudget</i> )
checks the elligibility of a given Boy, for the current instance of Girl class
Overrides: q3_teens.Teen.is_elligible

#### *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> __class__	



**5.2.3 Class Variables**

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

## 6 Module q3\_teens

### 6.1 Variables

Name	Description
__package__	Value: None

### 6.2 Class Teen

object —  
     q3\_teens.Teen

**Known Subclasses:** q3\_boys.Boy, q3\_girls.Girl

teen class for boys and girls

#### 6.2.1 Methods

<b>__init__</b> ( <i>self, name, atr, intelli, type</i> )
constructor
Overrides: object.__init__

<b>is_elligible</b> ( <i>self</i> )
abstract method which is overridden and overloaded by the Boy and Girl class respectively acc. to their needs

*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> __class__	

#### 6.2.3 Class Variables

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

## 7 Module q3\_utility

### 7.1 Functions

<b>utility()</b>
creates the input csv files

<b>create</b> ( <i>file</i> , <i>list</i> )
writes to csv files

### 7.2 Variables

Name	Description
__package__	Value: None

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