Documentation

API Documentation

April 9, 2017

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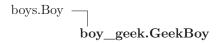
Class GeekBoy Module boy_geek

1 Module boy_geek

1.1 Variables

Name	Description
package	Value: None

1.2 Class GeekBoy



boy class for geek boys

1.2.1 Methods

init(self, name, atr, gfbudget, intelli, min_atr_req, typ	2)
constructor	
Overrides: boys.Boyinit	

Inherited from boys.Boy(Section 4.2)

${\bf 2}\quad {\bf Module\ boy_generous}$

2.1 Variables

Name	Description
package	Value: None

2.2 Class GenerousBoy

boys.Boy — boy_generous.GenerousBoy

boy class for generous boys

2.2.1 Methods

init(self, name, atr, gfbudget, intelli, min_atr_req, type)	
constructor	
Overrides: boys.Boyinit	

Inherited from boys.Boy(Section 4.2)

Class MiserBoy Module boy_miser

3 Module boy_miser

3.1 Variables

Name	Description
package	Value: None

3.2 Class MiserBoy

boys.Boy — boy_miser.MiserBoy

boy class for miser boys

3.2.1 Methods

init(self, name, atr, gfbudget, intelli, min_atr_req, type)	
constructor	
Overrides: boys.Boyinit	

Inherited from boys.Boy(Section 4.2)

Class Boy Module boys

4 Module boys

4.1 Variables

Name	Description
package	Value: None

4.2 Class Boy

Known Subclasses: boy_geek.GeekBoy, boy_generous.GenerousBoy, boy_miser.MiserBoy boy class for all boys

4.2.1 Methods

init(self, name,	atr, gfbudget, intelli, min_atr_req, type)
constructor	

is_elligible(self, mbudget, atr)
checks the elligibility of a given Girl, for the current instance of Boy class

Class Couple Module couple

5 Module couple

5.1 Variables

Name	Description
package	Value: None

5.2 Class Couple

couple class for all couples

init(self, boy, girl)
constructor

$set_happiness(self)$
set the happiness of a couple

$\underline{\mathbf{set}}\underline{\mathbf{compatibility}}(self)$	
set the compatibility of a couple	

6 Module gift_essential

6.1 Variables

Name	Description
package	Value: None

6.2 Class EssentialGift

gift class for essential gifts

init(self, name, price, value, type)
constructor
Overrides: gifts.Giftinit

7 Module gift_luxury

7.1 Variables

Name	Description
package	Value: None

7.2 Class LuxuryGift

gift class for luxury gifts

init(self, name, price, value, type, lxry_rtng, difficulty)
constructor
Overrides: gifts.Giftinit

Class UtilityGift Module gift_utility

8 Module gift_utility

8.1 Variables

Name	Description
package	Value: None

8.2 Class UtilityGift

gift class for utility gifts

init(self, name, price, value, type, utlty_value, utlty_class)
constructor
Overrides: gifts.Giftinit

Class Gift Module gifts

9 Module gifts

9.1 Variables

Name	Description
package	Value: None

9.2 Class Gift

init(self, name, price, value, type)
constructor

10 Module girl_choosy

10.1 Variables

Name	Description
package	Value: None

10.2 Class ChoosyGirl

```
girls.Girl — girl_choosy.ChoosyGirl
```

girl class for choosy girls

10.2.1 Methods

init(self, name, atr, mbudget, intelli, type)
constructor
Overrides: girls.Girlinit

Inherited from girls. Girl (Section 13.2)

11 Module girl_desperate

11.1 Variables

Name	Description
package	Value: None

11.2 Class DesperateGirl

girl class for desperate girls

11.2.1 Methods

init(self, name, atr, mbudget, intelli, type)
constructor
Overrides: girls.Girlinit

Inherited from girls. Girl (Section 13.2)

12 Module girl_normal

12.1 Variables

Name	Description
package	Value: None

12.2 Class NormalGirl

girls.Girl — girl_normal.NormalGirl

girl class for normal girls

12.2.1 Methods

init(self, name, atr, mbudget, intelli, type)	
constructor	
Overrides: girls.Girlinit	

$Inherited\ from\ girls. Girl (Section\ 13.2)$

Class Girl Module girls

13 Module girls

13.1 Variables

Name	Description
package	Value: None

13.2 Class Girl

 $\label{lem:choosy:cho$

init(self, name, atr, mbudget, intelli, type)
constructor

is_elligible(self, gfbudget)
checks the elligibility of a given Boy, for the current instance of Girl class

Variables Module q4_driver

14 Module q4_driver

14.1 Functions

allocate()

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

$calculate_happiness(B, G, C)$

reads and stores the inputs from the gifts.csv file and provide gift exchanges between the couples

$set_girl_happiness(c, v1, v2)$

sets the happiness of a girl according to her type

$hp_miser(GFT, c)$

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

$hp_generous(\mathit{GFT}, c)$

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

$hp_geek(\mathit{GFT}, c)$

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

$\mathbf{print}_{\mathbf{sc}}(C, k)$

prints the k least happy Couples

newallocate(B, G, C, k)

allocates new boys to the girls who broke up

14.2 Variables

Name	Description
package	Value: None

Variables Module utility

15 Module utility

15.1 Functions

utility()	
creates the input csv files	

create(file, list)	
writes to csv files	

15.2 Variables

Name	Description
package	Value: None

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