My Project

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Chapter 2

Class Documentation

2.1 Boy Class Reference

CLASS BOY containing attributes and member function of boys.

```
#include <boy.h>
```

Public Member Functions

- void find_happiness (int tot_cost, Girl girl)

  Function to find happiness of each commited boy.

Public Attributes

- int commited

  to check whether boy is commited or not
- int status

  out of the three categories, which type of BOY ((1)MISER,(2)GENEROUS,(3)GEEKS)
- char name_id [7]

  name of boy
- int atr

  Attraction level out of 10.
- int intl

  Intelligence level out of 10.
- int budget

  Budget of each boy.
- int min_atr

  Minimum attraction level of girl required to get commited.
- int happiness

  Happiness of each boy.

2.1.1 Detailed Description

CLASS BOY containing attributes and member function of boys.

The documentation for this class was generated from the following files:

- boy.h
- boy.cpp

2.2 Couple Class Reference

CLASS COUPLE containing attributes and member functions of couples.

```
#include <couple.h>
```

Public Member Functions

- void find_happiness ()

  Function to find happiness of a couple.
- void find_compatibility ()

  Function to find compatibility of a couple.

Public Attributes

- Girl girl

  Object of commited girl.
- Boy boy

  Object of commited Boy.
- Gift gift_basket [100]

  Object Array of Gifts exchanged between a couple.
- int happiness

  Happiness of couple.
- int compatibility

  Compatibility of couple.

2.2.1 Detailed Description

CLASS COUPLE containing attributes and member functions of couples.

The documentation for this class was generated from the following files:

- couple.h
- couple.cpp

2.3 Gift Class Reference

CLASS GIFT containing attributes of all Gifts.

```
#include <gift.h>
```

Public Attributes

- int value

  Value of each gift out of 100.
- int price

  Price of each gift.
- int type

  Type of Gift (1)ESSENTIAL 2)LUXURY 3)UTILITY)
- int is_selected

  to check whether that gift has been exchanged between a couple or not
- int lux_rate

  Luxury rating of Luxury gift out of 5, -1 otherwise.
- int lux_difficulty

  Difficulty to obtain LUXURY gift out of 10, -1 otherwise.
- int utl_value

  Utility value of UTILITY gift out of 100, -1 otherwise.
- int utl_class

  Utility class of UTILITY gift out of 10, -1 otherwise.

2.3.1 Detailed Description

CLASS GIFT containing attributes of all Gifts.

The documentation for this class was generated from the following file:

- gift.h

2.4 Girl Class Reference

CLASS GIRL containing attributes and member function of girls.

```
#include <girl.h>
```

Public Member Functions

- void find_happiness (int tot_cost, int tot_value)

  Function to find happiness of each commited Girl.

Public Attributes

- int commited

  to check whether girl is commited or not
- int status

  out of the three categories, which type of BOY ((1)CHOOSY,(2)NORMAL,(3)DESPERATE)
- char name_id [9]

  name of girl
- int atr

  Attraction level of girl out of 10.
- int intl

  Intelligence level of girl out of 10.
- int man_cost

  maintenance cost of each girl
- int criteria

  criteria for which boy to choose (1) Most Attractive 2) Most Rich 3) Most Intelligent)
- int happiness

  Happiness of each girl.

2.4.1 Detailed Description

CLASS GIRL containing attributes and member function of girls.

The documentation for this class was generated from the following files:

- girl.h
- girl.cpp

2.5 Pair Class Reference

CLASS PAIR containing attributes of couples formed.

```
#include <make_pair.h>
```

Public Member Functions

- Pair ()

  Allocate boyfriends to all girls when Pair object is created.
- void make_gift_basket ()

  Gift baskets of all couples are formed on the basis of all restrictions and are stored in gift_basket array of couple class.
- void find_happiness_comp ()

  Find Happiness and compatibility of all couples so formed in cp array of Pair class.
- void print_gift ()

  Print the gift basket of all couples along with the type of gift.

Public Attributes

- int k

  Number of couples.
- Couple cp [100]

  Object Array of Couple.

2.5.1 Detailed Description

CLASS PAIR containing attributes of couples formed.

2.5.2 Constructor & Destructor Documentation

2.5.2.1 Pair()

```
Pair::Pair ( )
```

Allocate boyfriends to all girls when Pair object is created.

Reads the data of girls from girl_list.txt Reads the data of boys from boy_list.txt Couples are formed in the same order as given in the input, and store them in cp array of Pair classConstructor on calling will result in pair formation on the basis of input

2.5.3 Member Function Documentation

2.5.3.1 find_happiness_comp()

```
void Pair::find_happiness_comp ( )
```

Find Happiness and compatibility of all couples so formed in cp array of Pair class.

Function to find happiness and compatibility of a couple

2.5.3.2 make_gift_basket()

```
void Pair::make_gift_basket ( )
```

Gift baskets of all couples are formed on the basis of all restrictions and are stored in gift_basket array of couple class.

Function to make gift basket for couple

2.5.3.3 print_gift()

```
void Pair::print_gift ( )
```

Print the gift basket of all couples along with the type of gift.

Print the gifts exchanged between a couple

The documentation for this class was generated from the following files:

- make_pair.h
- make_pair.cpp