My Project

Generated by Doxygen 1.8.13

Contents

Chapter 1

ppl-assignment-ritikamotwani

ppl-assignment-ritikamotwani created by GitHub Classroom

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###Language Used

```
C++


The project was made using Linux Ubuntu and the documentation was made through doxygen and latex with the
       class diagram
converted to pdf format
```

Files

```
.h files are the header files made and .cpp contain functions
.txt files contain the output,the randomly generated list of the input parameters
.pdf is for the documentation and Class diagram
```

For Execution

```
To  execute Question1 and Question2:
      g++ -c girl.cpp
      g++ -c boy.cpp
      g++ -c couple.cpp
      g++ -c make_pair.cpp
      g++ -c boy_list.cpp
      g++ -c girl_list.cpp
      g++ -c gift_list.cpp
      ar rvs ritika_file.a boy.o couple.o girl.o boy_list.o gift_list.o girl_list.o make_pair.o
 Then
 g++ ques1.cpp ritika_file.a
 ./a.out
 g++ ques2_main.cpp ritika_file.a
 ./a.out
 and input the value of k
 Output will be there in couple.txt and happ_comp_gift.

For all the questions from three to ten
        The List of couples , randomly generated girls, boys and gifts should exist That Is
        #### Question1 should be complied once before following the execution steps of any of the below
       questions.
 Question3 :
    For compilation-    g++ ques3.cpp inh_pair.cpp couple.cpp boy.cpp girl.cpp Fill.cpp
    For execution- ./a.out
    Give the value of k as input.
```

```
    Output-  happ_comp.txt

 Question4 :
    For compilation- g++ ques4.cpp inh_pair.cpp couple.cpp boy.cpp girl.cpp Fill.cpp
    For execution-   ./a.out
    Give the value of k as input.
    Output- new_couple.txt

 Question5  :
    For compilation-    g++ ques5.cpp girl.cpp boy.cpp couple.cpp new_order_couple.h
    Execution-  ./a.out
    Output-   order_couple.txt
    For k happy couples compile and execute question2.

 Question6 :
    For compilation-   g++ ques6.cpp inh_pair.cpp couple.cpp boy.cpp girl.cpp Fill.cpp t_days.cpp
    Execution- ./a.out
    Output- ques6.txt

 Question7 :
    For compilation-   g++ ques7.cpp inh_pair.cpp couple.cpp boy.cpp girl.cpp Fill.cpp Sorted_Class.cpp
       hash.cpp
    Execution-  ./a.out
    Output-  Three_Ways.txt

 Question8 :
    For compilation-  g++ ques8.cpp make_pair.cpp NewWay.cpp girl.cpp boy.cpp couple.cpp
    For execution-  ./a.out
    Output-  happ_comp_gift

Question9 :
      For Compilation-  g++ ques9.cpp secondary.cpp girl.cpp boy.cpp
      Execution- ./a.out
      Output-  ques9.txt and ques9_gifts.txt
```

Chapter 2

Hierarchical Index

2.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

Chapter 3

Class Index

3.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

Chapter 4

Class Documentation

4.1 Array_Class Class Reference

Public Member Functions

- void **function** ()

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

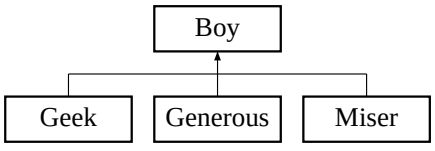
- Array_Class.h

4.2 Boy Class Reference

All the variables and member functions are declared here.

`#include <boy.h>`

Inheritance diagram for Boy:



Public Member Functions

- void happiness (int total_cost, Girl &g)

Public Attributes

- int **committed**
- int **type**
- char **name** [10]
- int **attractive**
- int **intell_b**
- int **budget**
- int **min_attr**
- int **happy**
- int **not_choose**

4.2.1 Detailed Description

All the variables and member functions are declared here.

4.2.2 Member Function Documentation

4.2.2.1 happiness()

```
void Boy::happiness (
            int total_cost,
            Girl & g )
```

<miser

<generous

<geek

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

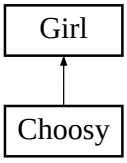
- boy.h
- boy.cpp

4.3 Choosy Class Reference

< A type of girl

`#include <girl_choosy.h>`

Inheritance diagram for Choosy:



Public Member Functions

- Choosy (char *namei, int atr, int intl, int man_cost, int criteria)
  < *Constructor*

Additional Inherited Members

4.3.1 Detailed Description

< A type of girl

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

- girl_choosy.h

4.4 Couple Class Reference

Public Member Functions

- void happiness ()
- void compatibility ()

Public Attributes

- Girl **g**
- Boy **b**
- int **happy**
- int **compatible**

4.4.1 Member Function Documentation

4.4.1.1 compatibility()

```
void Couple::compatibility ( )
```

<Calculates couple's compatibility

4.4.1.2 happiness()

```
void Couple::happiness ( )
```

<Calculates Happiness of the couple

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

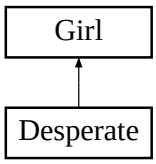
- couple.h
- couple.cpp

4.5 Desperate Class Reference

< inheritance

`#include <girl_desperate.h>`

Inheritance diagram for Desperate:



Public Member Functions

- **Desperate** (char *namei, int atr, int intl, int man_cost, int criteria)

Additional Inherited Members

4.5.1 Detailed Description

< inheritance

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

- girl_desperate.h

4.6 Fill Class Reference

< Fills data in the array

`#include <Fill.h>`

Public Member Functions

- void fill_data (Boy b[ ], Girl go[ ])

  Constructor on calling will result in transferring information of all girls and boys into array.

Public Attributes

- int num_boys

  Number of boys.
- int num_girls

  Number of girls.
- int num_gifts

  Number of gifts.

4.6.1 Detailed Description

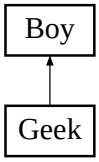
< Fills data in the array

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

- Fill.h
- Fill.cpp

4.7 Geek Class Reference

Inheritance diagram for Geek:



Public Member Functions

- Geek (char *namei, int atr, int intl, int budget1, int min_atr)
  < *Inheritance shown.*

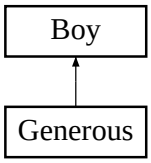
Additional Inherited Members

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

- boy_geeks.h

4.8 Generous Class Reference

Inheritance diagram for Generous:



Public Member Functions

- Generous (char *namei, int atr, int intl, int budget1, int min_atr)
  < *inheritance shown.*

Additional Inherited Members

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

- boy_generous.h

4.9 Gift Class Reference

<The header file having all the parameters a gift can have . there are three types of gifts

`#include <gift.h>`

Public Attributes

- int **value**
- int **price**
- int **type**
- int **which**
- int **luxury_rate**
- int **difficulty**
- int **utility_value**
- int **utility_class**

4.9.1 Detailed Description

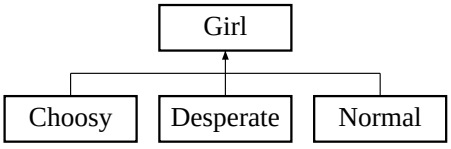
<The header file having all the parameters a gift can have . there are three types of gifts

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

- gift.h

4.10 Girl Class Reference

Inheritance diagram for Girl:



Public Member Functions

- void **happiness** (int total_cost, int total_value)

Public Attributes

- int **committed**
- int **type**
- char **name** [10]
- int **attractive**
- int **intell_g**
- int **maint**
- int **happy**
- int **check**
- char **no** [10]

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

- girl.h
- girl.cpp

4.11 hash Class Reference

Public Member Functions

- void **function** ()

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

- hash.h
- hash.cpp

4.12 MakePair Class Reference

Public Member Functions

- void input ()
- void **find_happiness** ()
- void **print** ()
- void **giftin** ()
- void break_up_function ()

  Happiness of all couples is calculated and couple who are less happy breakup and find a new partner from the remaining single peeople.
- void **form_couple** ()

Public Attributes

- Fill **fobj**
- Boy **b** [100]
- Girl **go** [100]
- int **k**
- Couple **c** [30]
- Gift **cg** [100][100]

4.12.1 Member Function Documentation

4.12.1.1 input()

```
void MakePair::input ( )
```

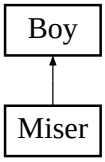
<The criteria of all the girls in choosing a boy*/

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

- inh_pair.h
- inh_pair.cpp

4.13 Miser Class Reference

Inheritance diagram for Miser:



Public Member Functions

- **Miser** (char *namei, int atr, int intl, int budget1, int min_atr)

Additional Inherited Members

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

- boy_miser.h

4.14 NewCouple Class Reference

< Output stored in order_couple.txt

```
#include <new_order_couple.h>
```

Public Member Functions

- void **select** ()

4.14.1 Detailed Description

< Output stored in order_couple.txt

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

- new_order_couple.h

4.15 NewWay Class Reference

Public Member Functions

- void allocation ()
  < *Output in happ_comp_gift*

Public Attributes

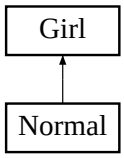
- int **k**
- Couple **c** [30]

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

- NewWay.h
- NewWay.cpp

4.16 Normal Class Reference

Inheritance diagram for Normal:



Public Member Functions

- **Normal** (char ∗namei, int atr, int intl, int man_cost, int criteria)

Additional Inherited Members

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

- girl_normal.h

4.17 Pair Class Reference

Public Member Functions

- void **input** ()
- void **find_happiness** ()

Public Attributes

- int **k**
- Couple **c** [30]
- Gift **cg** [100][100]

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

- make_pair.h
- make_pair.cpp

4.18 secondary Class Reference

Public Member Functions

- void **newList** ()
- void **formPair** ()
- void **newGifts** ()
- void **gifting** ()

Public Attributes

- Gift **gf** [40]
- Girl **g** [20]
- Boy **b** [31]
- Couple **c** [30]
- int **k**
- int **total**

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

- secondary.h
- secondary.cpp

4.19 Sorted_Class Class Reference

Public Member Functions

- void **function** ()

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

- Sorted_Class.h
- Sorted_Class.cpp

4.20 t_days Class Reference

Public Member Functions

- void **break_up_function** (int t)
- void **print** ()

Public Attributes

- MakePair **br**

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

- t_days.h
- t_days.cpp