PPL Assignment - 1 IIT2015017

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Chapter 1

Class Index

1.1 Class List

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Geek_boy				 					 											 			ç
Generous_boy																							
Miser_boy				 					 													1	3
Normal girl				 					 											 		1	e

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Chapter 2

File Index

2.1 File List

Here is a list of all files with brief descriptions:

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File Index

Chapter 3

Class Documentation

3.1 Choosy_girl Class Reference

```
#include <girl_choosy.h>
```

Public Member Functions

- Choosy_girl ()
- Choosy_girl (string, int, int, int, int)

Public Attributes

- string name
- · int attractiveness
- int maintenance
- int intelligence
- int selection_criteria
- bool is_committed

3.1.1 Detailed Description

Definition at line 7 of file girl_choosy.h.

3.1.2 Constructor & Destructor Documentation

```
3.1.2.1 Choosy_girl() [1/2]

Choosy_girl::Choosy_girl ( )
```

Definition at line 4 of file girl_choosy.cpp.

3.1.2.2 Choosy_girl() [2/2]

```
Choosy_girl::Choosy_girl (
    string n,
    int a,
    int m,
    int i,
    int s)
```

Definition at line 8 of file girl_choosy.cpp.

3.1.3 Member Data Documentation

3.1.3.1 attractiveness

```
int Choosy_girl::attractiveness
```

Definition at line 12 of file girl_choosy.h.

3.1.3.2 intelligence

```
int Choosy_girl::intelligence
```

Definition at line 16 of file girl_choosy.h.

3.1.3.3 is_committed

```
bool Choosy_girl::is_committed
```

Definition at line 22 of file girl_choosy.h.

3.1.3.4 maintenance

int Choosy_girl::maintenance

Definition at line 14 of file girl_choosy.h.

3.1.3.5 name

```
string Choosy_girl::name
```

Definition at line 10 of file girl_choosy.h.

3.1.3.6 selection_criteria

```
int Choosy_girl::selection_criteria
```

Definition at line 18 of file girl_choosy.h.

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

- ppl_assignment/q1/girl_choosy.h
- ppl_assignment/q1/girl_choosy.cpp

3.2 Desperate_girl Class Reference

```
#include <girl_desperate.h>
```

Public Member Functions

- Desperate_girl ()
- Desperate_girl (string, int, int, int, int)

Public Attributes

- · string name
- int attractiveness
- int maintenance
- int intelligence
- int selection_criteria
- bool is_committed

3.2.1 Detailed Description

Definition at line 7 of file girl_desperate.h.

3.2.2 Constructor & Destructor Documentation

```
3.2.2.1 Desperate_girl() [1/2]
```

```
Desperate_girl::Desperate_girl ( )
```

Definition at line 4 of file girl_desperate.cpp.

3.2.2.2 Desperate_girl() [2/2]

```
Desperate_girl::Desperate_girl (
    string n,
    int a,
    int m,
    int i,
    int s)
```

Definition at line 9 of file girl_desperate.cpp.

3.2.3 Member Data Documentation

3.2.3.1 attractiveness

```
int Desperate_girl::attractiveness
```

Definition at line 12 of file girl_desperate.h.

3.2.3.2 intelligence

```
int Desperate_girl::intelligence
```

Definition at line 16 of file girl_desperate.h.

3.2.3.3 is committed

bool Desperate_girl::is_committed

Definition at line 22 of file girl_desperate.h.

3.2.3.4 maintenance

```
int Desperate_girl::maintenance
```

Definition at line 14 of file girl_desperate.h.

3.2.3.5 name

```
string Desperate_girl::name
```

Definition at line 10 of file girl_desperate.h.

3.2.3.6 selection_criteria

```
int Desperate_girl::selection_criteria
```

Definition at line 18 of file girl_desperate.h.

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

- ppl_assignment/q1/girl_desperate.h
- ppl_assignment/q1/girl_desperate.cpp

3.3 Geek_boy Class Reference

```
#include <boy_geek.h>
```

Public Member Functions

- Geek_boy ()
- Geek_boy (string, int, int, int, int)

Public Attributes

- string name
- · int attractiveness
- · int intelligence
- int budget
- int min_attraction_of_girl
- · bool is_committed

3.3.1 Detailed Description

Definition at line 6 of file boy_geek.h.

3.3.2 Constructor & Destructor Documentation

```
3.3.2.1 Geek_boy() [1/2]

Geek_boy::Geek_boy ( )
```

Definition at line 4 of file boy_geek.cpp.

3.3.2.2 Geek_boy() [2/2]

Definition at line 8 of file boy_geek.cpp.

3.3.3 Member Data Documentation

3.3.3.1 attractiveness

```
int Geek_boy::attractiveness
```

Definition at line 11 of file boy_geek.h.

3.3.3.2 budget

```
int Geek_boy::budget
```

Definition at line 15 of file boy_geek.h.

3.3.3.3 intelligence

int Geek_boy::intelligence

Definition at line 13 of file boy geek.h.

3.3.3.4 is_committed

```
bool Geek_boy::is_committed
```

Definition at line 19 of file boy_geek.h.

3.3.3.5 min_attraction_of_girl

```
int Geek_boy::min_attraction_of_girl
```

Definition at line 17 of file boy_geek.h.

3.3.3.6 name

```
string Geek_boy::name
```

Definition at line 9 of file boy_geek.h.

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

- ppl_assignment/q1/boy_geek.h
- ppl_assignment/q1/boy_geek.cpp

3.4 Generous_boy Class Reference

```
#include <boy_generous.h>
```

Public Member Functions

- Generous_boy ()
- Generous_boy (string, int, int, int, int)

Public Attributes

- string name
- int attractiveness
- int intelligence
- int budget
- int min_attraction_of_girl
- · bool is_committed

3.4.1 Detailed Description

Definition at line 6 of file boy_generous.h.

3.4.2 Constructor & Destructor Documentation

```
3.4.2.1 Generous_boy() [1/2]
Generous_boy::Generous_boy ( )
```

Definition at line 4 of file boy_generous.cpp.

3.4.2.2 Generous_boy() [2/2]

Definition at line 9 of file boy_generous.cpp.

3.4.3 Member Data Documentation

3.4.3.1 attractiveness

```
int Generous_boy::attractiveness
```

Definition at line 11 of file boy_generous.h.

3.4.3.2 budget

int Generous_boy::budget

Definition at line 15 of file boy_generous.h.

3.4.3.3 intelligence

int Generous_boy::intelligence

Definition at line 13 of file boy_generous.h.

3.4.3.4 is_committed

bool Generous_boy::is_committed

Definition at line 19 of file boy_generous.h.

3.4.3.5 min_attraction_of_girl

int Generous_boy::min_attraction_of_girl

Definition at line 17 of file boy_generous.h.

3.4.3.6 name

string Generous_boy::name

Definition at line 9 of file boy_generous.h.

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

- ppl_assignment/q1/boy_generous.h
- ppl_assignment/q1/boy_generous.cpp

3.5 Miser_boy Class Reference

#include <boy_miser.h>

Public Member Functions

- Miser_boy ()
- Miser_boy (string, int, int, int, int)

Public Attributes

- string name
- int attractiveness
- · int intelligence
- int budget
- int min_attraction_of_girl
- bool is_committed

3.5.1 Detailed Description

Definition at line 6 of file boy_miser.h.

3.5.2 Constructor & Destructor Documentation

```
3.5.2.1 Miser_boy() [1/2]

Miser_boy::Miser_boy ( )
```

Definition at line 4 of file boy_miser.cpp.

```
3.5.2.2 Miser_boy() [2/2]
```

```
Miser_boy::Miser_boy (
    string n,
    int a,
    int i,
    int b,
    int m )
```

Definition at line 9 of file boy_miser.cpp.

3.5.3 Member Data Documentation

3.5.3.1 attractiveness

int Miser_boy::attractiveness

Definition at line 11 of file boy_miser.h.

3.5.3.2 budget

int Miser_boy::budget

Definition at line 15 of file boy_miser.h.

3.5.3.3 intelligence

int Miser_boy::intelligence

Definition at line 13 of file boy_miser.h.

3.5.3.4 is_committed

bool Miser_boy::is_committed

Definition at line 19 of file boy_miser.h.

3.5.3.5 min_attraction_of_girl

int Miser_boy::min_attraction_of_girl

Definition at line 17 of file boy_miser.h.

3.5.3.6 name

string Miser_boy::name

Definition at line 9 of file boy_miser.h.

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

- ppl_assignment/q1/boy_miser.h
- ppl_assignment/q1/boy_miser.cpp

3.6 Normal_girl Class Reference

```
#include <girl_normal.h>
```

Public Member Functions

- Normal_girl ()
- Normal_girl (string, int, int, int, int)

Public Attributes

- string name
- · int attractiveness
- int maintenance
- · int intelligence
- int selection_criteria
- · bool is_committed

3.6.1 Detailed Description

Definition at line 7 of file girl_normal.h.

3.6.2 Constructor & Destructor Documentation

```
3.6.2.1 Normal_girl() [1/2]

Normal_girl::Normal_girl ( )
```

Definition at line 4 of file girl_normal.cpp.

```
3.6.2.2 Normal_girl() [2/2]
```

Definition at line 8 of file girl_normal.cpp.

3.6.3 Member Data Documentation

3.6.3.1 attractiveness

int Normal_girl::attractiveness

Definition at line 12 of file girl_normal.h.

3.6.3.2 intelligence

int Normal_girl::intelligence

Definition at line 16 of file girl_normal.h.

3.6.3.3 is_committed

bool Normal_girl::is_committed

Definition at line 22 of file girl_normal.h.

3.6.3.4 maintenance

int Normal_girl::maintenance

Definition at line 14 of file girl_normal.h.

3.6.3.5 name

string Normal_girl::name

Definition at line 10 of file girl_normal.h.

3.6.3.6 selection_criteria

int Normal_girl::selection_criteria

Definition at line 18 of file girl_normal.h.

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

- ppl_assignment/q1/girl_normal.h
- ppl_assignment/q1/girl_normal.cpp

Chapter 4

File Documentation

4.1 ppl_assignment/q1/additional_functions.cpp File Reference

```
#include "additional_functions.h"
#include <bits/stdc++.h>
```

Functions

- void generate_input ()
- void read_input_and_pair (Choosy_girl g1[50], Normal_girl g2[50], Desperate_girl g3[50], Miser_boy b1[100], Generous_boy b2[100], Geek_boy b3[100], vector< pair< string, string >> *couples)
- void print_couples (vector< pair< string, string > > couples)
- void print_k_happiest (Couple c[50], int cnt)
- void print_k_most_compatible (Couple c[50], int cnt)

4.1.1 Function Documentation

```
4.1.1.1 generate_input()
void generate_input ( )
```

Definition at line 8 of file additional_functions.cpp.

Definition at line 433 of file additional_functions.cpp.

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4.1.1.3 print_k_happiest()

Definition at line 449 of file additional functions.cpp.

4.1.1.4 print_k_most_compatible()

Definition at line 473 of file additional_functions.cpp.

4.1.1.5 read_input_and_pair()

Definition at line 53 of file additional_functions.cpp.

4.2 ppl_assignment/q1/additional_functions.h File Reference

4.3 ppl_assignment/q1/additional_functions_2.cpp File Reference

```
#include "additional_functions.h"
#include <bits/stdc++.h>
```

Functions

- void generate_input_2()
- int give_gifts (int b_type, int g_type, string b_name, string g_name, Essential_gift gt1[250], Luxury_gift gt2[250], Utility_gift gt3[250], Couple c[50], int maintenance, int budget, int c_cnt, int cnt_gt1, int cnt_gt2, int cnt_gt3, int intel)
- void read_pairup_and_gift (Choosy_girl g1[50], Normal_girl g2[50], Desperate_girl g3[50], Miser_boy b1[100], Generous_boy b2[100], Geek_boy b3[100], Essential_gift gt1[250], Luxury_gift gt2[250], Utility_gift gt3[250], Couple c1[50], int *couple_count)

4.3.1 Function Documentation

```
4.3.1.1 generate_input_2()

void generate_input_2 ( )
```

Definition at line 5 of file additional_functions_2.cpp.

4.3.1.2 give_gifts()

```
int give_gifts (
            int b_type,
            int g_type,
            string b_name,
            string g_name,
            Essential_gift gt1[250],
             Luxury_gift gt2[250],
             Utility_gift gt3[250],
             Couple c[50],
             int maintenance,
             int budget,
             int c\_cnt,
             int cnt_gt1,
             int cnt_gt2,
             int cnt_gt3,
             int intel )
```

Definition at line 77 of file additional_functions_2.cpp.

4.3.1.3 read_pairup_and_gift()

Definition at line 390 of file additional_functions_2.cpp.

22 File Documentation

- 4.4 ppl_assignment/q1/additional_functions_2.h File Reference
- 4.5 ppl_assignment/q1/boy_geek.cpp File Reference

```
#include "boy_geek.h"
#include <string>
```

4.6 ppl_assignment/q1/boy_geek.h File Reference

```
#include <string>
```

Classes

- · class Geek boy
- 4.7 ppl_assignment/q1/boy_generous.cpp File Reference

```
#include "boy_generous.h"
#include <string>
```

4.8 ppl_assignment/q1/boy_generous.h File Reference

```
#include <string>
```

Classes

- class Generous_boy
- 4.9 ppl_assignment/q1/boy_miser.cpp File Reference

```
#include "boy_miser.h"
#include <string>
```

4.10 ppl_assignment/q1/boy_miser.h File Reference

```
#include <string>
```

Classes

· class Miser_boy

4.11 ppl_assignment/q1/girl_choosy.cpp File Reference

```
#include "girl_choosy.h"
#include <string>
```

4.12 ppl_assignment/q1/girl_choosy.h File Reference

```
#include <string>
```

Classes

· class Choosy_girl

4.13 ppl_assignment/q1/girl_desperate.cpp File Reference

```
#include "girl_desperate.h"
#include <string>
```

4.14 ppl_assignment/q1/girl_desperate.h File Reference

```
#include <string>
```

Classes

class Desperate_girl

4.15 ppl_assignment/q1/girl_normal.cpp File Reference

```
#include "girl_normal.h"
#include <string>
```

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4.16 ppl_assignment/q1/girl_normal.h File Reference

```
#include <string>
```

Classes

• class Normal_girl

4.17 ppl_assignment/q1/q1.cpp File Reference

```
#include <bits/stdc++.h>
#include "girl_choosy.h"
#include "girl_normal.h"
#include "girl_desperate.h"
#include "boy_miser.h"
#include "boy_generous.h"
#include "boy_geek.h"
#include "additional_functions.h"
```

Functions

• int main ()

4.17.1 Function Documentation

```
4.17.1.1 main()
```

int main ()

Definition at line 11 of file q1.cpp.