**BIL105-E**

**Intr to Sci&Eng Comp**

**CRN: 22596**

**II.Homework**

**Instructor:**

Yusuf YASLAN

**Student’s Name and Number:**

Tuğrul YATAĞAN

040100117

**Date: 08.04.2012**

1. Introduction

Project is about, writing a program that generates and displays “lottery (lotto) coupons” automatically with different functions for given user parameters. The program generates lotto coupons randomly in different types according to the option selections of the user. The program starts with asking the user what type of lotto coupon he/she wants and then program waits for different parameters according to the selection of user. After input parameters is entered by the user, program executes functions which are implemented for a specific task (type of the lotto coupon will be generated). Lotto coupons can have different count of columns and each column must contain six (6) numbers will have been generated randomly between 1 & 49.

1. Development and Runtime environment

The project was developed on Linux **Ubuntu 11.10** distribution operation system. **GCC** (g++) compiler was used for compiling and **Geany** was used as integrated development environment program.

Program compiles and then run without input parameter. Program works on ***main()*** function with . Program includes ***iostream, cstdlib, cmath, iomanip*** and***ctime*** standard C++libraries.

***srand(time(NULL))*** function is used for generating first seed integer in range.

1. Variables

**UPPER\_LIMIT** and **LOWER\_LIMIT** are global variables which are used for limiting lowest and highest value. **step** is integer variable which is used for counting steps. **random\_number** is integer variable which gets values from ***rand()*** function. **users\_guess**, **comp\_guess**, **low\_limit** and **up\_limit** are integer variables which are necessary for getting values from user, calculation and declaration values to the user. **users\_clue** is string variables which is used getting characteristic clues from user. **more** is boolean variables which is used for run or terminate the while loop in the program.

1. Conclusion

The program is compiled without any compiling warning. Necessary structures are applied on program. It is consistent and it runs without any runtime error. Program responds user’s requirements. The project reached aimed target.