CENG 103
Computer Programming 1
HOMEWORK 3
Due by 23:55pm, 23.11.2016

In this homework, you will create an application for playing a modified and simple version of "AdamAsmaca" with numbers. The idea is just to guess numbers, not the correct places. In this application, your game should keep information about Player including the ID of the player, the number of wins (numWin), the number of times game played (playCount) and the maximum level (maxLevel) he/she has reached.

Application should include three methods called main(), adamAsmaca() and generateReport()

Your application should satisfy the requirements given below:

1. Your program should ask the user's ID.

2. Your program should start by displaying a menu as given below:

> Enter your choice:
> > 1. Start Game
> > 2. End Game

3. The default value for maxLevel is 1. playCount and numWin should be given default values appropriately so that at the end of the game for a user, your program should display the number of times the user played the game, the maximum level he/she has reached, the number of games she winned.

4. If user select "Start Game" option, then the adamAsmaca() method will be called. This method will take the information about Player such as ID, maxLevel, numWin, playCount as arguments. It will start playing the game according to maxLevel field of the Player.

5. There are 3 levels in your program, in Level 1 you will ask a number in 3 digits and the user has 8 guess chances. In Level 2 you will ask a number in 4 digits and the user has 10 guess chances. In Level 3 you will ask a number in 5 digits and the user has 12 guess chances.

6. The number you ask should be displayed as follows: (for four digits) :****

7. The user will type a digit between 0-9, 0 and 9 included.

8. You will take the digit, and look whether digit exists in your hidden number.

9. If exists display the digit as: e.g. **0*

10. It is possible to have duplicate digits in a hidden number.

11. If user could not successfully guess the number at the end of the number of chances

defined by his/her level, you will display "You lost the Game!"

12. If she wins, that is correctly guesses the number within the number of guess chances, you

will display "You win the Game".

13. In either case of win or lose adamAsmaca() method will return.

14. If the user wins, you should increment the maxLevel of the player, and update playCount

and numWin accordingly.

15. The maxLevel of the game is 4, after 4 you should not increment the level.

16. After a game completed, you will redisplay the menu.

17. If user presses 1 again, this means she will start a new game. Therefore, you will recall

adamAsmaca() with again the same player.

18. This execution continues until 2 is entered for ending game after a game finished.

19. If user presses 2 at the end of a game, you will call generateReport() method. This method
will take the information about Player such as ID, maxLevel, numWin, playCount as
arguments. The method will display the ID, numWin, maxLevel and playCount of the Player.

Have fun.