

This project is about customizing the yathzee game in assembly language.

In main proc, I used code label called loop1 to work main proc 12 times in total. To count each step of game, I increased loop count memory label and at the end of main proc, I simply compared it with 12. After that, Total score that achieved by user is calculated and printed. Finally the code asks the user if he wants to play again or not. Also in the beginning part there are some steps to clear memory labels.

In each step, the code asks user to press enter to roll a dice 'works with only the enter key'. After rolling a set of die, it asks user if he/she wants to reroll or just fill the score table. If user calls the char 'y' then the code asks for the number of dies to be rerolled and the dies to be rerolled in order, two times. In this step RerollADice and DisplayDices procs are used for rerolling and displaying dies afterwards. After rerolling or notrerolling then the code goes code label called 'l6' to ask for which combination will be choosed. Simply, user is asked for a number that represents the combination he/she chooses. Then eax is compared with sequence of 1-12. When eax equals one of them code jumps relevant code label and calculates the current die set. After calculating, that relevant label jumps to 'final' code label and stores score in score memory label set. And 11 times more.

PROC 1:ScoreCheck

Is used in a purpose of checking whether the number representing combination entered by user is used before or not. I used another ScoreC array to hold checked memory labels. If its used, the code moves the value '1' in the ScoreC in the main proc. If it's used before, ebx is changed into 1. If not, ebx is set by 0.

PROC 2:RerollADice

The dies that ll be rerolled is pointed in RerollD memory label in main proc.In here,i scan RerollD and the parts that is '1' is relatively rerolled a gain in die set.At the end we set all values in RerollD by 0.

PROC 3:RollADice

Simply randomizes 5 values between 1-6 and stores them in Dices memory label set.

PROC 4:DisplayDices

Dýsplays dies in order using Dices memory label.

PROC 5:Display

Displays the menu.

PROC 6:CalOnes

Calculate Ones is used for calculating the score of the die set in ones Combination.Ebx is set by 0 in the beginning.Adds '1'to ebx if the set has one .Calculated score is stored in ebx.

PROC 7:CalTwos

Is used for calculating the score of the die set in twos Combination.Adds '2'to ebx if the set has one.Calculated score is stored in ebx.

PROC 8:CalThrees

Is used for calculating the score of the die set in threes Combination.Adds '3'to ebx if the set has one.Calculated score is stored in ebx.

PROC 9:CalFours

Is used for calculating the score of the die set in fours Combination.Adds '4'to ebx if the set has one.Calculated score is stored in ebx.

PROC 10:CalFives

Is used for calculating the score of the die set in fives Combination.Adds '5'to ebx if the set has one.Calculated score is stored in ebx.

PROC 11:CalSixes

Is used for calculating the score of the die set in sixes Combination. Adds '6' to ebx if the set has one. Calculated score is stored in ebx.

PROC 12:ThreeOfAKind

Is used for calculating the score of die set in Three of a kind combination. It scans Dices memory label set and for each value adds 1 to relevant part of DiceCount memory label set. If any part is greater than 3 or equal to the 3 that means the set satisfies the three of a kind combination. If not, it doesn't satisfy that combination. If the die set suits, all dies are summed up and stored in ebx. If not, ebx is set by 0. At the end, DiceCount values are set by 0.

PROC 13:FourOfAKind

Almost same with the proc three of a kind. Only checks the label part is greater than 4 or equal to the 4.

PROC 14:Yathzee

Again almost same with the proc three of a kind, but only when one of the parts is equal to 5, ebx is set by 50. Else, ebx is set by 0,.

PROC 15:FourInARow

If the die set suits four in a row, it has to include 1 2 or 3. So if it has one of these, it scans the set 1 by 1 for next values and increments ecx every time it has next value. For example, after finding 1 in the array it scans for 2, if it finds 2 it scans for 3 and so on. At the same time it increases the ecx by 1. If ecx is greater equal to the 4 then it goes to memory label 13 and sets ebx by 20. If it's lower than 4, it checks for 2 and 3. Finally if it doesn't find a row, the code sets ebx by 0.

PROC 16:FiveInARow

Almost same with FourInARow but it compares ecx with 5 this time instead of 4. If it's equal to 5 then

ebx is set by 30.Else,ebx is set by 0.

PROC 17:AnyThing

Simply finds the total of Dices set and store it in ebx.