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/*****
/*HW02_part2.c
/*
/*Written by Mustafa Akilli on March 1, 2015
/*
/*Description
/*
/* Guessing An Integer Number
/*Inputs:
/* -Guess number
/*Outputs:
/*
*****/
/*
/*-----*/
/* Includes
#include <stdio.h>
#include <stdlib.h>
/*-----*/

/* To generate the random number
double RNG();
/* To calculate the difference between guess and the number
double CalculateTheDifference(int random_number, int guess_number);
/* To print a warning in order to guide the player
double WarnThePlayer(int difference);

int
main(void){

    /*variables*/
    int random_number, guess_number, difference, warn;

    /*To generate the random number*/
    random_number = RNG();

    /*get input from user*/
    printf("You have 2 chances to guess\n");
    printf("Please Guess the number to between 1-10:");
    scanf("%d",&guess_number);

    /*To calculate the difference between guess and the number*/
    difference = CalculateTheDifference(random_number, guess_number);
    /*To print a warning in order to guide the player*/
    warn = WarnThePlayer(difference);

    /*Congratulation to user if user win*/
    if(random_number==guess_number){

        printf("congratulation you find the number...\n");
        return 0;
    }

    /*Give to second chance to user*/
    else{

        printf("This is the last chance. Please try again:");
        scanf("%d",&guess_number);
        difference = CalculateTheDifference(random_number, guess_number);
    }

    /*Congratulation to user if user win*/
    if(random_number == guess_number){

        printf("congratulation you find the number...\n");
        return 0;
    }

    /*Game over*/
    else{

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        printf("You are lose all chances\n");
    }

    /*write to number if user did not win*/
    printf("Number is %d\n",random_number);

    return 0;
}

/* To generate the random number */
double RNG(){

    int x;
    srand(time(NULL));
    x = rand ()%10+1;
    return x;
}

/* To calculate the difference between guess and the number */
double CalculateTheDifference(int random_number, int guess_number){

    int difference;

    if(guess_number>random_number){

        difference = guess_number-random_number;
    }

    else{

        difference = random_number-guess_number;
    }

    return difference;
}

/* To print a warning in order to guide the player */
double WarnThePlayer(int difference){

    if(difference>=5){

        printf("You are too far from the number\n");
    }

    else if(difference>=3){

        printf("You are far from the number\n");
    }

    else if(difference>=1){

        printf("You are close to the number\n");
    }

}

/*#####*/
/*                                End of HW02_part2.c                                */
/*#####*/
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