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Practice Problem 13

Task 1:

Code:

```c
#include<stdio.h>
#include<time.h>
#include<stdlib.h>
#include<unistd.h>

int randomno();
int player1(char name1[]);
int player2(char name2[]);

int main() {
    char name1[10];
    char name2[10];

    printf("**Welcome to the Dice Game!**\n\n");
    printf("Player 1, please enter your name: ");
    scanf("%s", name1);

    printf("Player 2, please enter your name: ");
    scanf("%s", name2);

    int score1 = player1(name1);
    int score2 = player2(name2);

    if (score1 > score2) {
        printf("And the winner is... %s! Congratulations\n", name1);
    } else {
        printf("And the winner is... %s! Congratulations!\n", name2);
    }

    return 0;
}
```

```c
int randomno() {
    sleep(1);
    srand(time(NULL));
    return rand() % 6 + 1;
}

int player1(char name1[]) {
    printf("Rolling the dice for %s\n", name1);

    int dice1 = randomno();
    int dice2 = randomno();
    int dice3 = randomno();

    printf("Dice 1: %d\n", dice1);
    printf("Dice 2: %d\n", dice2);
    printf("Dice 3: %d\n", dice3);

    int sum = dice1 + dice2 + dice3;

    printf("Total score of player 1 is: %d\n\n", sum);

    return sum;
}

int player2(char name2[]) {
    printf("Rolling the dice for %s\n", name2);

    int dice1 = randomno();
    int dice2 = randomno();
    int dice3 = randomno();

    printf("Dice 1: %d\n", dice1);
    printf("Dice 2: %d\n", dice2);
    printf("Dice 3: %d\n", dice3);

    int sum = dice1 + dice2 + dice3;

    printf("Total score of player 2 is: %d\n", sum);

    return sum;
}
```

Output:

```
muhammad@muhammad-Latitude-5490:~/Desktop$ ./a.out
**Welcome to the Dice Game!**

Player 1, please enter your name: Ahmed
Player 2, please enter your name: Ali
Rolling the dice for Ahmed
Dice 1: 4
Dice 2: 6
Dice 3: 4
Total score of player 1 is: 14

Rolling the dice for Ali
Dice 1: 2
Dice 2: 3
Dice 3: 6
Total score of player 2 is: 11
And the winner is... Ahmed! Congratulations
muhammad@muhammad-Latitude-5490:~/Desktop$
```