

## QUESTION 2

```
#include <stdio.h>
#include <stdlib.h>
#include <pthread.h>
int numbers[] = {90, 81, 78, 95, 79, 72, 85};
int size = 7;
float avg;
int min, max;
void *average(void *arg) {
    int *nums = (int *)arg;
    int sum = 0;
    for (int i = 0; i < size; i++) {
        sum += nums[i];
    }
    avg = (double)sum / size;
    pthread_exit(NULL);
}
void *minimum(void *arg) {
    int *nums = (int *)arg;
    min = nums[0];
    for (int i = 1; i < size; i++) {
        if (nums[i] < min) {
            min = nums[i];
        }
    }
    pthread_exit(NULL);
}
void *maximum(void *arg) {
    int *nums = (int *)arg;
    max = nums[0];
    for (int i = 1; i < size; i++) {
        if (nums[i] > max) {
            max = nums[i];
        }
    }
    pthread_exit(NULL);
}
```

```
}  
int main() {  
    pthread_t th1, th2, th3;  
    pthread_create(&th1, NULL, average, (void *)numbers);  
    pthread_create(&th2, NULL, minimum, (void *)numbers);  
    pthread_create(&th3, NULL, maximum, (void *)numbers);  
    pthread_join(th1, NULL);  
    pthread_join(th2, NULL);  
    pthread_join(th3, NULL);  
    printf("The average value is %.2f.\n", avg);  
    printf("The minimum value is %d.\n", min);  
    printf("The maximum value is %d.\n", max);  
    return 0;  
}
```

```
(kali㉿kali)-[~/Documents]  
$ touch task2lab8.c
```

```
(kali㉿kali)-[~/Documents]  
$ gcc task2lab8.c -o output
```

```
(kali㉿kali)-[~/Documents]  
$ ./output
```

```
The average value is 82.86.
```

```
The minimum value is 72.
```

```
The maximum value is 95.
```

```
(kali㉿kali)-[~/Documents]  
$
```