

Assesment -1:

// Online C compiler to run C program online

```
#include <stdio.h>
```

```
int main() {  
    int n;  
    scanf("%d",&n);  
    int efficiency[100];  
    int totaldistance=0,totalfuel=0,maxefficiency=0,minefficiency=1000;  
    int maxindex=0,minindex=0,average=0;  
    printf("enter a fuel efficiency:");  
    for(int i=0;i<n;i++){  
        scanf("%d",&efficiency[i]);  
    }  
    for(int i=0;i<n;i++){  
        totaldistance+=efficiency[i];  
        totalfuel+=1;  
        if(efficiency[i] > maxefficiency){  
            maxefficiency=efficiency[i];  
            maxindex=i;  
        }  
        if(efficiency[i] < minefficiency){  
            minefficiency=efficiency[i];  
            minindex=i;  
        }  
    }  
    average=totaldistance/totalfuel;  
    printf("\n");  
    printf("Total distance travelled: %d\n",totaldistance);  
    printf("Total fuel Consumed :%d\n",totalfuel);
```

```

printf("Average fuel consumed: %d\n",average);

printf("Maximum fuel: %d\n",maxefficiency);

printf("Minimum fuel: %d\n",minefficiency);

// to Classify each interval as "Efficient," "Moderate," or "Poor" based on efficiency
for(int i=0;i<n;i++){

    if(efficiency[i]>=15){

        printf("Efficient");

        printf("\n");

    }

    else if(efficiency[i]>=10 && efficiency[i] <15){

        printf("Moderate");

        printf("\n");

    }

    else{

        printf("poor");

        printf("\n");

    }

}

}

```

The screenshot shows an online C compiler interface with the following components:

- main.c**: The source code file being edited.
- Run**: A button to execute the program.
- Output**: A panel showing the program's output and execution status.

Code Snippet (main.c):

```

1 // Online C compiler to run C program online
2 #include <stdio.h>
3
4 int main() {
5     int n;
6     scanf("%d",&n);
7     int efficiency[100];
8     int totaldistance=0,totalfuel=0,maxefficiency=0,minefficiency=1000;
9     int maxindex=0,minindex=0,average=0;
10    printf("enter a fuel efficiency:");
11    for(int i=0;i<n;i++){
12        scanf("%d",&efficiency[i]);
13    }
14    for(int i=0;i<n;i++){
15        totaldistance+=efficiency[i];
16        totalfuel+=1;
17        if(efficiency[i] > maxefficiency){
18            maxefficiency=efficiency[i];
19            maxindex=i;
20        }
21        if(efficiency[i] < minefficiency){
22            minefficiency=efficiency[i];
23            minindex=i;
24        }
25    }
26    }
27    average=totaldistance/totalfuel;
28    printf("\n");
29    printf("Total distance travelled: %d\n",totaldistance);

```

Output:

```

6
enter a fuel efficiency:34 56 2 8 13 90

Total distance travelled: 203
Total fuel Consumed :6
Average fuel consumed: 33
Maximum fuel: 90
Minimum fuel: 2
Efficient
Efficient
poor
poor
Moderate
Efficient

=== Code Execution Successful ===

```

```
main.c  Run  Output  Clear
23     minindex=1;
24     }
25
26     }
27     average=totaldistance/totalfuel;
28     printf("\n");
29     printf("Total distance travelled: %d\n",totaldistance);
30     printf("Total fuel Consumed :%d\n",totalfuel);
31     printf("Average fuel consumed: %d\n",average);
32     printf("Maximum fuel: %d\n",maxefficiency);
33     printf("Minimum fuel: %d\n",minefficiency);
34     // to Classify each interval as "Efficient," "Moderate," or "Poor" based
    on efficiency
35     for(int i=0;i<n;i++){
36         if(efficiency[i]>=15){
37             printf("Efficient");
38             printf("\n");
39         }
40         else if(efficiency[i]>=10 && efficiency[i] <15){
41             printf("Moderate");
42             printf("\n");
43         }
44         else{
45             printf("poor");
46             printf("\n");
47         }
48     }
49 }
```

6
enter a fuel efficiency:34 56 2 8 13 90

Total distance travelled: 203
Total fuel Consumed :6
Average fuel consumed: 33
Maximum fuel: 90
Minimum fuel: 2
Efficient
Efficient
poor
poor
Moderate
Efficient

=== Code Execution Successful ===