**Homework 3 – Create your own Loop application**

Create your own While-End or (For End) repetition using C code. One of the following themes should be used:

• Summing the total miles run or walked in a typical week

• Summing the cost for groceries spent during a month

• Summing the cost of hotel rooms used during vacation in a year

• Summing the total number of automobile accidents in the DC area in one week

Code:

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//CMIS 102 Homework 3

//Runs per Week and Miles

//19 July 2020

#include <stdio.h>

int main(void) {

/\* variable definition: \*/

unsigned int counter;

int miles;

int runs;

int total;

/\* Initialize \*/

total = 0;

counter = 1;

/\* Loop through to input values\*/

printf("%s","Enter number of runs in a week : ");

scanf("%d", &runs);

while (counter <= runs){

printf("%s","Enter miles for a ran : ");

scanf("%d", &miles);

total = total + miles ;

counter = counter + 1;

}

printf("Total number of miles ran is %d", total);

return 0;

}

**Statement:** Basically my repetition Structure is taking the users input of how many runs in a week they ran and how many miles per run they did and giving the user their weekly total for their runs.

Test Table:

|  |  |  |  |
| --- | --- | --- | --- |
| **Test Case** | **Input runs** | **Input miles** | **Expected output** |
| **1** | 5 | 9, 6, 7, 8, 3 | 33 |
| **2** | 3 | 6, 9, 1 | 16 |
| **3** | 1 | 3 | 3 |
| **4** | 6 | 1, 3, 5, 7, 9, 11 | 36 |
| **5** | 2 | 5, 9 | 14 |

Test Case 1:

A screenshot of a cell phone

Description automatically generated

Test Case 2:

A screenshot of a cell phone

Description automatically generated

Test Case 3:

A screenshot of a cell phone

Description automatically generated

Test Case 4:

A screenshot of a cell phone

Description automatically generated

Test Case 5:

A screenshot of a cell phone

Description automatically generated