

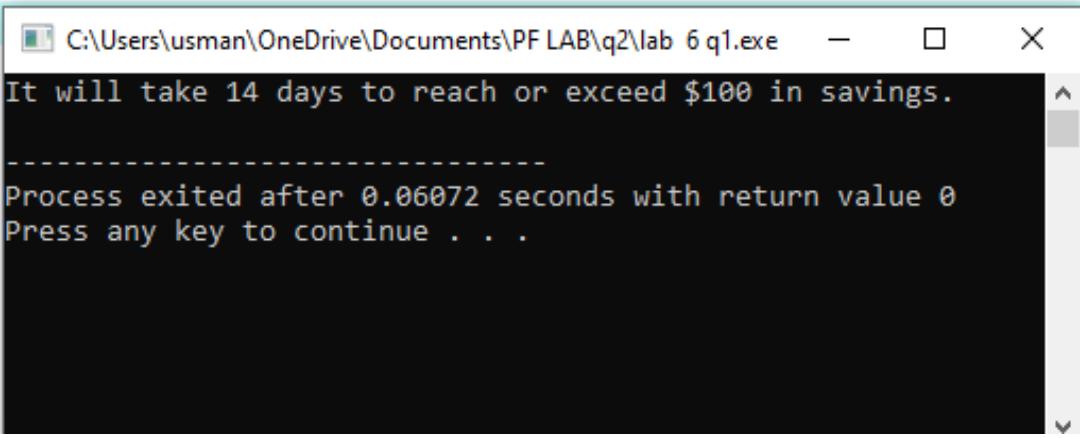
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|--------------------------|---------------------------------------|
| <b>Course Title:</b>     | Programming Fundamentals Lab (CL1002) |
| <b>Assignment Title:</b> | Lab Class Task (Manual 06)            |
| <b>Submitted to:</b>     | Sir Sandesh Kumar                     |
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| <b>Roll No:</b>          | 25K-2038 BCY-1A                       |
| <b>Date:</b>             | 2 October 2025                        |

## LAB EXERCISES [6 Marks]

1. Write a C program to solve the money saving problem. You start by saving \$1 on the first day and increase your savings by \$1 each subsequent day. Your program should calculate how many days it will take for your total savings to reach or exceed \$100.
2. Write a C program to determine the depreciation of a car. The car is purchased for \$30,000 and depreciates by 10% each year. Your program should find and print the value at the end of each year until the value falls below \$15,000. Also, print the number of years it took for the value to drop below \$15,000.
3. Write a C program to calculate a jogger's progress. The jogger runs 500 meters on the first day and increases the distance by 5% each subsequent day. Your program should calculate how many days it will take for the jogger to run at least 2 kilometers (2000 meters) in a single day. Print the distance run on the final day.

# Question 1

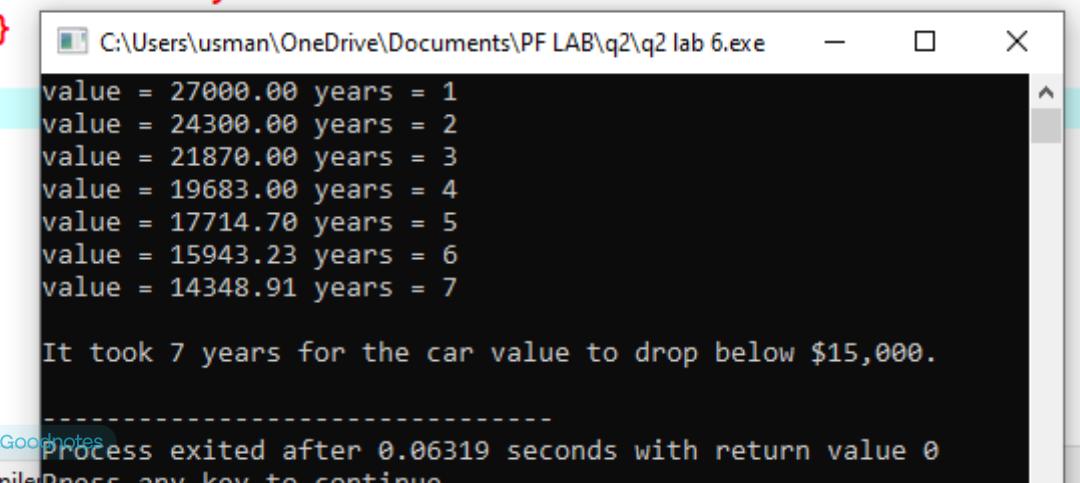
```

1 #include<stdio.h>
2 int main() {
3     int day=0;
4     int total=0;
5     while (total <= 100){
6         day++;
7         total += day;
8     }
9     printf("It will take %d days to reach or exceed $100 in savings.\n", day);
10    return 0;
11 }
12


```

# Question 2

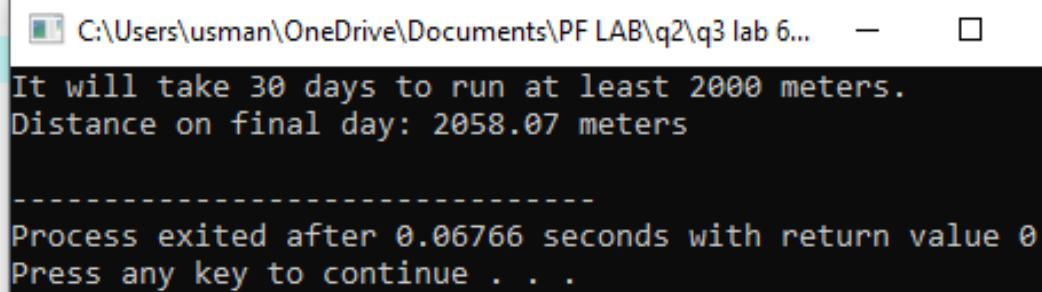
```

1 #include<stdio.h>
2 int main(){
3     float value=30000;
4     int years=0;
5     while (value >=15000){
6         years++;
7         value=value*0.9;
8         printf("value = %.2f years = %d \n", value, years);
9     }
10    printf("\nIt took %d years for the car value to drop below $15,000.\n", years);
11    return 0;
12 }
13


```

# Question 3

```
1 #include<stdio.h>
2 int main() {
3     int days=1;
4     float daily_distance=500;
5     while (daily_distance <= 2000){
6         days++;
7         daily_distance *= 1.05;
8     }
9     printf("It will take %d days to run at least 2000 meters.\n", days);
10
11    printf("Distance on final day: %.2f meters\n", daily_distance);
12    return 0;
13 }
14
```



```
C:\Users\usman\OneDrive\Documents\PF LAB\q2\q3 lab 6...
It will take 30 days to run at least 2000 meters.
Distance on final day: 2058.07 meters

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Process exited after 0.06766 seconds with return value 0
Press any key to continue . . .
```