

BARARE KEHINDE HAMMEEDAT

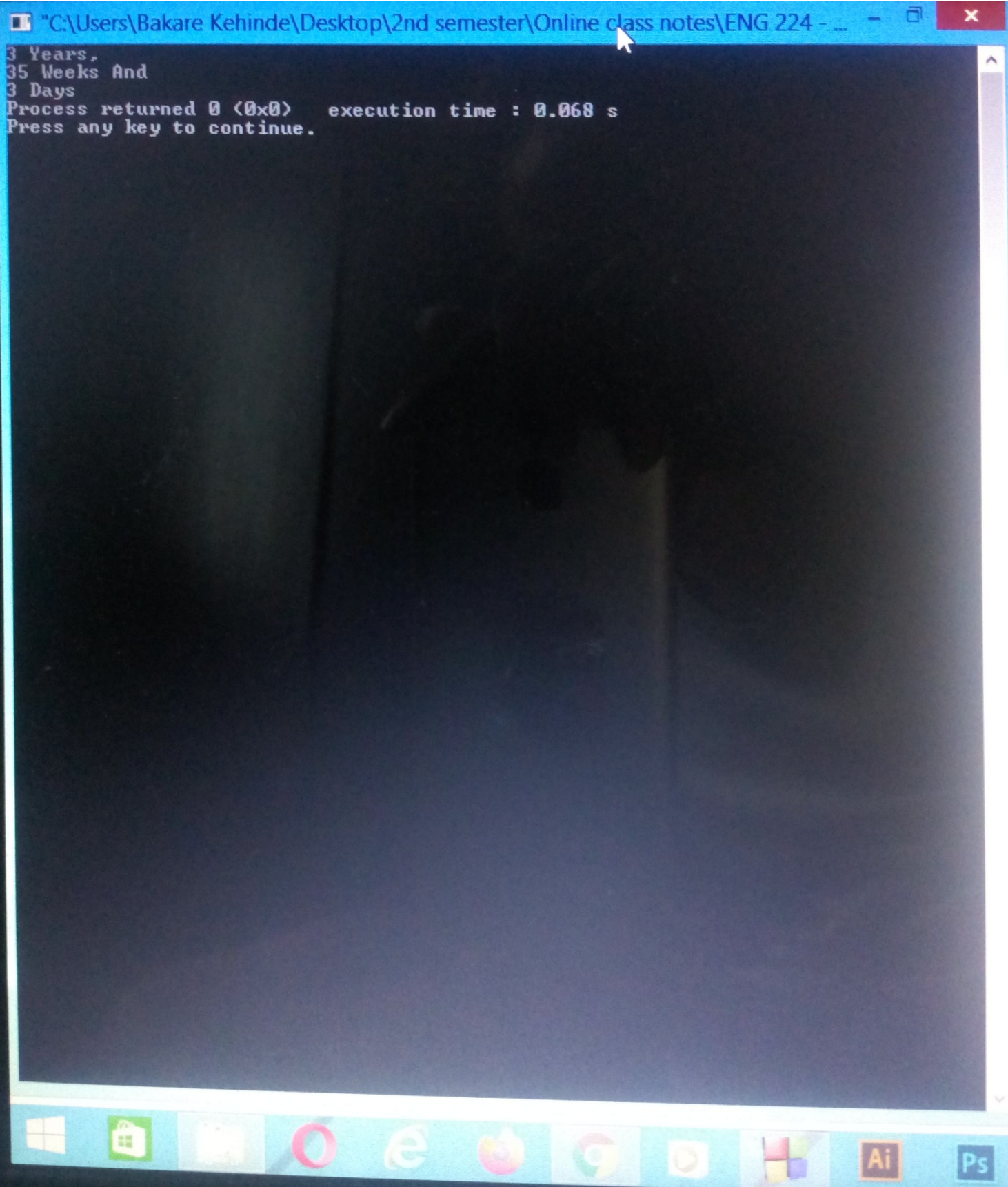
19/ENG03/032

CIVIL ENGINEERING

ENG 224

Question 1

```
1. #include <stdio.h>
2. #include <stdlib.h>
3. int main()
4. {
5.     int days, weeks, years;
6.     days = 1343;
7.     years = days/365;
8.     weeks = (days%365)/7;
9.     days = days - ((years*365) + (weeks*7));
10.    printf = ("%d Years, \n", years);
11.    printf = ("%d Weeks And \n", weeks);
12.    printf = ("%d Days.", days);
13.    return 0;
14. }
```



Question 2.

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 int main()
4 {
5     float x1, x2, y1, y2, distance;
6     printf("Please input x1: ");
7     scanf("%f", &x1);
8     printf("Please input x2: ");
9     scanf("%f", &x2);
10    printf("Please input y1: ");
11    scanf("%f", &y1);
12    printf("Please input y2: ");
13    scanf("%f", &y2);
14    distance = sqrt((x2-x1)*(x2-x1) + (y2-y1)*(y2-y1));
15    printf("Distance between the points: %f", distance);
16    return 0;
17 }
```

"C:\Users\Bakare Kehinde\Desktop\2nd semester\Online class notes\ENG 224 - ...
Please Input x1: 4
Please Input x2: 3
Please Input y1: 7
Please Input y2: 8
Distance between the point: 1.4142
Process returned 0 (0x0) execution time : 6.352 s
Press any key to continue.



Question 3

1 #include <stdio.h>

2 #include <stdlib.h>

3 int main()

4 {

5 float a, b, c, perimeter;

6 printf("Input first value: ");

7 scanf("%f", &a);

8 printf("Input second value: ");

9 scanf("%f", &b);

10 ~~printf~~

```

10 printf ("Input third value: ");
11 scanf ("%f", &c);
12 if (a < (b+c) && b < (a+c) && c < (a+b))
13 {
14     printf ("Possible to make a triangle");
15     perimeter = a + b + c;
16     printf ("In Perimeter = %f", perimeter);
17 }
18 else
19 {
20     printf ("Not possible to make a triangle");
21 }
22 return 0;
23 }

```

```
"C:\Users\Bakare Kehinde\Desktop\2nd semester\Online class notes\ENG 224 - ...  
Input first value: 3  
Input second value: 4  
Input third value: 5  
Possible to make a triangle  
Perimeter = 12.000000  
Process returned 0 (0x0)   execution time : 7.457 s  
Press any key to continue.
```

"C:\Users\Bakare Kehinde\Desktop\2nd semester\Online class notes\ENG 22

```
Input first value: 13
Input second value: 2
Input third value: 3
Not possible to make a triangle
Process returned 0 (0x0)   execution time : 9.013 s
Press any key to continue.
```

Question 4.

```
1. #include <stdio.h>
2. #include <stdlib.h>
3. int main()
4. {
5.     int age;
6.     int baby=0, school=0, adult=0;
7.     int count=0;
8.     while (count<20)
9.     {
10.        printf ("Please enter the age of the person (%d):", count);
11.        scanf ("%d", &age);
12.        if (age>=0 && age<=4)
13.            baby++;
14.        - else if (age>=5 && age<=17)
15.            school++;
16.        else
17.            adult++;
18.        count++;
19.    }
```

```
20 printf("Total Baby Age: %d\n", baby);  
21 printf("Total School Age: %d\n", school);  
22 printf("Total Adult Age: %d\n", adult);  
23 return 0;  
24 }
```

Please enter the age of the person (1):4
Please enter the age of the person (2):5
Please enter the age of the person (3):10
Please enter the age of the person (4):17
Please enter the age of the person (5):90
Please enter the age of the person (6):22
Please enter the age of the person (7):2
Please enter the age of the person (8):0
Please enter the age of the person (9):11
Please enter the age of the person (10):13
Please enter the age of the person (11):10
Please enter the age of the person (12):3
Please enter the age of the person (13):31
Please enter the age of the person (14):42
Please enter the age of the person (15):24
Please enter the age of the person (16):16
Please enter the age of the person (17):0
Please enter the age of the person (18):4
Please enter the age of the person (19):7
Please enter the age of the person (20):23
Total Baby Age: 6
Total School Age: 8
Total Adult Age: 6

Process returned 0 (0x0) execution time : 65.271 s
Press any key to continue.

Question 5

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 int main()
4 {
5     int num, random_no = 0, count = 0;
6     int stime;
7     long time;
8     time = time(NULL);
9     stime = (unsigned) (time / 2);
10    srand(stime);
11    random_no = rand() % 100;
12    while(1)
13    {
14        count += 1;
15        printf("\n Guess a number from (0 to 100): ");
16        scanf("%d", &num);
17        if (random_no == num)
18        {
19            printf("Congratulations, you have guessed the correct\n number.");
20            break;
21        }
22        else if (random_no < num)
23            printf("Entered number is greater than random\n number, try again.");
24        else if (random_no > num)
25            printf("Entered number is less than random\n number, try again.");
```

```
26 if (count == 7)
27 {
28     printf("\n You have run out of attempts!!");
29     break;
30 }
31 }
32 return 0;
33 }
```

```
Guess a number from (0 to 100): 50
Entered number is greater than random number, try again.
Guess a number from (0 to 100): 30
Entered number is less than random number, try again.
Guess a number from (0 to 100): 40
Entered number is less than random number, try again.
Guess a number from (0 to 100): 45
Entered number is greater than random number, try again.
Guess a number from (0 to 100): 43
Entered number is greater than random number, try again.
Guess a number from (0 to 100): 41
Congratulations, you have guessed the correct number.
Process returned 0 (0x0)    execution time : 46.003 s
Press any key to continue.
```

```
Guess a number from (0 to 100): 50
Entered number is greater than random number, try again.
Guess a number from (0 to 100): 48
Entered number is greater than random number, try again.
Guess a number from (0 to 100): 30
Entered number is greater than random number, try again.
Guess a number from (0 to 100): 32
Entered number is greater than random number, try again.
Guess a number from (0 to 100): 22
Entered number is greater than random number, try again.
Guess a number from (0 to 100): 20
Entered number is greater than random number, try again.
Guess a number from (0 to 100): 19
Entered number is greater than random number, try again.
You have run out of attempts!!
Process returned 0 (0x0)    execution time : 33.627 s
Press any key to continue.
```