

## Experiment 1: Installation, Environment Setup & Starting with C language.

1. Write a C program to print "Hello World"

### Algorithm :

1. Start
2. Include Header file (<stdio.h>)
3. Define main function
4. Print "Hello World"
5. End program using return 0
6. Stop

### Code :

```
#include <stdio.h>
int main ()
{
    printf ("Hello world");
    return 0;
}
```

## OUTPUT:

```
[Running] cd "c:\Users\AKSHIT\OneDrive\Desktop\AkshitProject\" &&  
gcc test.c -o test &&  
"c:\Users\AKSHIT\OneDrive\Desktop\AkshitProject\"test  
Hello world  
[Done] exited with code=0 in 0.474 seconds
```

2. Write a C program to print the address in multiple lines (new line).

Algorithm:

1. Start
2. Include header file (<stdio.h>)
3. Define main function
4. Print each line of the address
5. Insert \n after each line (new line).
6. End program using return 0
7. Stop

Code:

```
#include <stdio.h>
int main () {
    // Printing address in multiple lines
    printf ("Akshit Sinha\n");
    printf ("UPES Dehradun\n");
    printf ("Bidholi Campus\n");
    printf ("Dehradun, Uttarakhand\n");
}
```

```
printf ("PIN - 248007 \n");
```

```
return 0;
```

```
}
```



## OUTPUT:

```
[Running] cd "c:\Users\AKSHIT\OneDrive\Desktop\AkshitProject\" && gcc test.c -o test &&
```

```
"c:\Users\AKSHIT\OneDrive\Desktop\AkshitProject\"test
```

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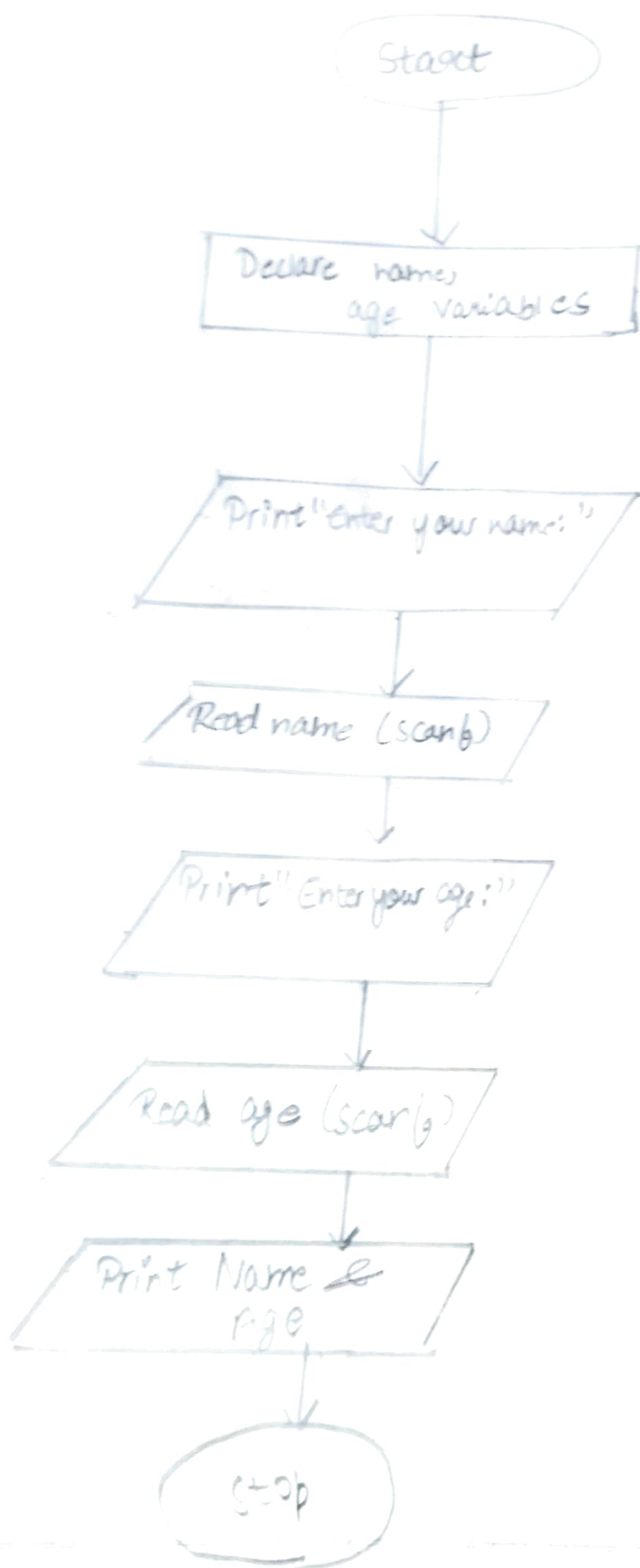
PIN - 248007

3. Write a program that prompts the user to enter their name and age.

Algorithm:

1. Start
2. Declare Variables (name, age)
3. Print for the user to enter their name
4. Read the name using scanf.
5. Print for the user to enter their age.
6. Read the age using scanf.
7. Display the name & age.
8. Stop

1. Program



Code:

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

```
int main () {
```

```
    char name[20]; // Storing the name
```

```
    int age; // Storing the age
```

```
    // Asking the user to enter their name
```

```
    printf("Enter your name: ");
```

```
    scanf("%s", name); // %s to read a single word
```

```
    // Asking the user to enter their age
```

```
    printf("Enter your age: ");
```

```
    scanf("%d", &age); // %d used for decimal integers
```

```
    // Displaying the output
```

```
    printf("Name: %s\n", name);
```

```
    printf("Age: %d\n", age);
```

```
    return 0;
```

```
}
```



QUIZ:

```
PS C:\Users\AKSHIT\OneDrive\Desktop\AkshitProject> ./test.exe
Enter your name: Akshit
Enter your age: 18
Name: Akshit
Age: 18
PS C:\Users\AKSHIT\OneDrive\Desktop\AkshitProject> |
```

4. Write a C program to add two numbers, take number from user.

Algorithm:

1. Start

~~2.~~

2. Declare Variables (num1, num2, sum)

3. Print "Enter first number:"

4. Read the number using scanf("%d", &num1)

5. Print "Enter second number:"

6. Read the second number using scanf("%d", &num2)

7. Calculate  $sum = num1 + num2$

8. Show output 'sum'

9. Stop.

Code:

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

```
int main() {
```

```
    int num1, num2, sum;
```

```
    // Asking for input
```

```
    printf("Enter first number: ");
```

```
    scanf("%d", &num1); // & used for address of num1
```

```
    printf("Enter second number: ");
```

```
    scanf("%d", &num2); // & gives address of num2
```

```
    // Adding numbers
```

```
    sum = num1 + num2;
```

```
    // Displaying the output
```

```
    printf("Sum = %d\n", sum);
```

```
    return 0;
```

```
}
```



## OUTPUT:

```
PS C:\Users\AKSHIT\OneDrive\Desktop\AkshitProject> gcc C:\Users\AKSHIT\OneDrive\Desktop\AkshitProject\test.c
```

```
PS C:\Users\AKSHIT\OneDrive\Desktop\AkshitProject> ./test.exe
```

```
Enter first number: 5
```

```
Enter second number: 23
```

```
Sum = 28
```

```
PS C:\Users\AKSHIT\OneDrive\Desktop\AkshitProject> |
```