```
/* Write a C program to convert specified days into years, weeks and
days. Write an algorithm & draw a flowchart for the same.*/
#include <stdio.h>
int main() {
int days, years, weeks, numofdays;
// Ask user for input
printf("Enter the number of days: ");
scanf("%d", & numofdays);
years =  numofdays / 365;
weeks =  (numofdays % 365) / 7;
days = ( numofdays % 365) % 7;
// Output the result
printf("Number of days:%d \n" , numofdays );
printf("Years:%d \n" , years);
printf("Weeks:%d \n" ,weeks );
printf("Days:%d \n" ,days );
return 0;}
/*
***---out-put---***
Enter the number of days: 1329
Number of days:1329
Years:3
Weeks:33
Days:3
*/
```

```
/*Write a C program to calculate salary of an employee with name.
Write an algorithm & draw a flowchart for the same.*/
#include <stdio.h>
int main() {
char name[100];
float basicSalary, hra, da, pf, grossSalary;
// Input employee details
printf("Enter name: ");
scanf("%s", name);
printf("Enter Basic Salary: ");
scanf("%f", &basicSalary);
printf("Enter HRA: ");
scanf("%f", &hra);
printf("Enter D.A.: ");
scanf("%f", &da);
// Calculate Provident Fund (PF) as 12% of the basic salary
pf = 0.12 * basicSalary;
// Calculate gross salary
grossSalary = basicSalary + hra + da + pf;
// Output the details
printf("\nName: %s", name);
printf("BASIC: %.6f\n", basicSalary);
printf("HRA: %.6f\n", hra);
printf("DA: %.6f\n", da);
printf("PF: %.6f\n", pf);
printf("***GROSS SALARY: %.6f ***\n", grossSalary);
return 0;}
/*  ----output----
Enter name: Mike
Enter Basic Salary: 23000
Enter HRA: 9500
Enter D.A.: 9500
```

```
Name: Mike
BASIC: 23000.000000
HRA: 9500.000000
DA: 9500.000000
PF: 2760.000000
***GROSS SALARY: 44760.000000 ***
*/
```

```
/*Write a C program to read age of 15 person and count total Baby
age,
School age and adult age. (Hint: While loop) */
#include <stdio.h>
int main(){
int age;
int babyCount = 0, schoolAgeCount = 0, adultCount = 0;
    int i = 0;
    while (i <15) {
       printf("Enter the age of person [%d]: ", i + 1);
       scanf("%d", &age);
        if (age <= 3) {
            babyCount++;}
        else if (age >= 4 && age <= 16)
        {schoolAgeCount++;}
        else {adultCount++;}
        i++; }
printf("\nBaby age: %d\n", babyCount);
printf("School age: %d\n", schoolAgeCount);
printf("Adult age: %d\n", adultCount);
 return 0;}
/*
Enter the age of person [1]: 0
Enter the age of person [2]: 1
Enter the age of person [3]: 2
Enter the age of person [4]: 3
Enter the age of person [5]: 44
Enter the age of person [6]: 55
Enter the age of person [7]: 66
Enter the age of person [8]: 44
Enter the age of person [9]: 12
Enter the age of person [10]: 13
Enter the age of person [11]: 14
```

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Enter the age of person [12]: 55
Enter the age of person [13]: 66
Enter the age of person [14]: 18
Enter the age of person [15]: 19

Baby age: 4
School age: 3
Adult age: 8

*/
/*Write a C program to print the following Pyramid:*/
#include <stdio.h>
int main() {
int i, j, rows = 5;
for(i = 1; i <= rows; i++) {
for(j = 1; j <= i; j++) {
printf("*"); }
printf("\n"); }
return 0;}
/* --out-put--
*
**
***
****
*****
*/
```

```
/*Write a C program to print Fibonacci series using recursion.*/
#include <stdio.h>
int fibonacci(int n) {
if (n == 0) {
return 0;
} else if (n == 1) {
return 1;
} else {
return fibonacci(n - 1) + fibonacci(n - 2);  } }
int main() {
int terms, i;
// Ask the user to enter the number of terms
printf("Enter total number of terms: ");
scanf("%d", &terms);
printf("Fibonacci series is: ");
// Loop through the range and print Fibonacci numbers
for (i = 0; i < terms; i++) {
printf("%d ", fibonacci(i));
}
printf("\n");
return 0;}
/*
Enter total number of terms: 10
Fibonacci series is: 0 1 1 2 3 5 8 13 21 34
*/
```

```
/*Write a C program that defines functions to perform the following
tasks:
1. Create a function to calculate the area of a rectangle. The
function should take the length and width as input and return the
area.
2. Create a function to calculate the area of a circle. The function
should take the radius as input and return the area. (Use the value
of pi as 3.14159).
3. Create a function to calculate the area of a triangle. The
function should take the base and height as input and return the
area.
4. The program should:
o Prompt the user to select which geometric shape's area they
would like to calculate.
o Based on the user's selection, the program should call the
appropriate function and display the result.
*/
#include <stdio.h>
// Function to calculate the area of a rectangle
float rectangleArea(float length, float width) {
return length * width;
}
// Function to calculate the area of a circle
float circleArea(float radius) {
const float PI = 3.14159;
return PI * radius * radius;
}
// Function to calculate the area of a triangle
float triangleArea(float base, float height) {
return 0.5 * base * height;
}
int main() {
```

```
int choice;
float length, width, radius, base, height, area;
// Prompt the user to select a shape
printf("Select a shape to calculate its area:\n");
printf("1. Rectangle\n");
printf("2. Circle\n");
printf("3. Triangle\n");
printf("Enter your choice (1/2/3): ");
scanf("%d", &choice);
// Perform calculations based on user choice
switch (choice) {
case 1:
// Rectangle area
printf("Enter length and width of the rectangle: ");
scanf("%f %f", &length, &width);
area = rectangleArea(length, width);
printf("The area of the rectangle is: %.2f\n", area);
break;
case 2:
// Circle area
printf("Enter the radius of the circle: ");
scanf("%f", &radius);
area = circleArea(radius);
printf("The area of the circle is: %.2f\n", area);
break;
case 3:
// Triangle area
printf("Enter the base and height of the triangle: ");
scanf("%f %f", &base, &height);
area = triangleArea(base, height);
printf("The area of the triangle is: %.2f\n", area);
break;
```

```
default:
printf("Invalid choice! Please select a valid option (1/2/3).\n");
}
return 0; }
/*
Select a shape to calculate its area:
1. Rectangle
2. Circle
3. Triangle
Enter your choice (1/2/3): 1
Enter length and width of the rectangle: 5 3
The area of the rectangle is: 15.00
*/
```