archer 7 : onounem of c · guitaurana et c Toran rai eq bighty portable. This means that a programs written for one computer can be near on another with with the or no modification, portability is important if we plan to use a new company with a different os. c language & well suited for shuttwial programming the requiring the ever to think of a problem in terms of function modules or blocks. (trupens , get of month main () -> spl function. € -> traiting of function Pront (a B see, & rember"); |* tample * will the will the second 3 -> End of tunction The program should romes pulgance remusery of anyther The program should contain only main function. - 1+.... * 1 -> comment, this are not Executable patement, there are ignor the fire respectent soco.co = print(a_____") -> print() & a predyfined function which is us to print the cont between the que tation marks. In -> to print the data in new line or next line mill . I will byutt (a 5 gr / 2); 1 seems sime broutt (n & vernemporn); outputs 2 remember 1004 # Include < stato, h> (aom 7 = kap) with In-kenner (money, we), it has me any l'is library functions. war francison income ilent + more = eller main es a part of Every c mogram. différent tormi of moin are int main () · vord man () " Main (void) TIME 9000000 ' void main (wold) 00.0270 · Int main (rord). 6160.50 void main -- function does not return any into to the os. Post moon -> function returns our integer value to os. The last thater

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                             must notionent tods with senviction;
       x= (PI/MAX) * argu;
        y = cos (x);
        prantf(4,15d %13.4f ) n", angle, y);
       angle = angle + 10)
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* base inuitive of chodsom! naple of the of the selection Documentation section -> Pet of comment line -> TO LANK SYTHEM LADROURCE BUK ECTLON -> defines all symbolic contracts afferences rection global declaration section rain () function section of be be be be to assissing times) read 5 diclaration part Executable part subprogram section function ! w of math-functions my function 2 e frond round mark iforaul to me the 61, Etc. # frauds ? mails 1) * Exuling a 'c' program. follows and hot differ et 3, iu is Probles Several Steps ogi xum unju 1, creating the program () our a, compiling the program 3. Uniting the program with functions that are needed from the c librar 4. Excuting the program * Surmary :("ala(Opania wpa")): - Every c program requeres a main en function, only one main () - Every tratement Ends with ferricolon? · nlun + (xumlid) = x. printillating of the 12 police of into bor . John

sprituardin p un;

```
/* Write a program to print mailing address*/
#include <stdio.h>
int main()
{
        printf("Name : Supriya\n");
        printf("Door No ,Street : 462,Sairam \n");
        printf("City, Pin Code : Vijayawada, 520001\n");
        return 0;
}
supriya@ubuntu:~/Desktop/c/chp1$ ./mail
Name : Supriya
Door No ,Street : 462,Sairam
City, Pin Code : Vijayawada, 520001
supriya@ubuntu:~/Desktop/c/chp1$
```

suprtya@ubuntu:~/Desktop/c/cnp1\$ cat mail.c

uprlya@ubuntu:~/Desktop/c/chp1\$ cat border.c

```
/* Print given figure with characters*/
#include <stdio.h>
int main()
{
        printf("[ ] --->> [ ]\n");
        return 0;
}
supriya@ubuntu:~/Desktop/c/chp1$ ./figure
[ ] --->> [ ]
```

```
/* Multiplication table of 5*/
#include <stdio.h>
int main()
1
         int i:
         for(i = 1; i <= 10; i++)
         printf("5 x %d = %d\n", i, 5*i);
         } return 0;
supriya@ubuntu:~/Desktop/c/chp1$ ./mul5
5 \times 1 = 5
5 \times 2 = 10
5 \times 3 = 15
5 \times 4 = 20
5 \times 5 = 25
5 \times 6 = 30
5 \times 7 = 35
5 \times 8 = 40
5 \times 9 = 45
5 \times 10 = 50
```

```
/* Distance between two points*/
#include <stdio.h>
#include <math.h>
int main()
{
        float x1,y1,x2,y2,d;
        printf("Enter (x1,y1): ");
        scanf("%f %f",&x1,&y1);
        printf("Enter (x2,y2): ");
scanf("%f %f",&x2,&y2);
        d = sqrt((x2-x1)*(x2-x1) + (y2-y1)*(y2-y1));
        printf("Distance = %.2f\n", d);
        return 0:
supriya@ubuntu:~/Desktop/c/chp1$ ./distance
Enter (x1,y1): 4.6 1.6
Enter (x2,y2): 5.7 9.8
Distance = 8.27
```

supriya@ubuntu:~/vesktop/c/cnp15 cat distance.c

```
/* Compute x = a / (b-c)*/
#include <stdio.h>
int main()
       int a,b,c;
        float x:
        printf("enter the values of a,b,c\n");
        scanf("%d %d %d",&a,&b,&c);
       if(b-c==0)
                printf(" Division by zero not possible\n");
        else
        £
                x = (float) a / (b-c);
                printf(" x = \%.2f \setminus n", x);
        return 0;
supriya@ubuntu:~/Desktop/c/chp1$ ./variable
enter the values of a,b,c
4 5 6
```

```
/* Compute area of circle*/
#include <stdio.h>
#define PI 3.1416
int main()
{
    int r;
    float area;
    r = 16;
    area = PI * r * r;
    printf("Area of circle = %.2f\n", area);
    return 0;
}
supriya@ubuntu:~/Desktop/c/chp1$ ./area
Area of circle = 804.25
```

```
/* Add and Subtract Using Tunctions*/
#include <stdio.h>
int add(int , int );
int sub(int , int );
int main()
         int a,b;
         a=20;
         b=10;
        printf("%d + %d = %d\n", a, b, add(a,b));
printf("%d - %d = %d\n", a, b, sub(a,b));
         return 0;
int add(int a,int b)
         return a+b;
int sub(int a,int b)
         return a-b;
supriya@ubuntu:~/Desktop/c/chp1$ ./fun
20 + 10 = 30
20 - 10 = 10
```

```
/* Area of a triangle formula*/
#include <stdio.h>
#include <math.h>
int main()
{
    int a,b,c;
    float s, area;
    printf("Enter sides a, b, c: ");
    scanf("%d %d %d", &a, &b, &c);
    s = (a+b+c)/2;
    area = sqrt(s*(s-a)*(s-b)*(s-c));
    printf("Area of triangle = %.2f\n", area);
    return 0;
}
supriya@ubuntu:~/Desktop/c/chp1$ ./tri
Enter sides a, b, c: 5 6 7
Area of triangle = 14.78
```

supreya@upuncu:~/veskcop/c/cnpx\$ car cre-c

```
supreyaquouncu:~/veskcop/c/cnpis car arcinc
/* Simple arithmetic calculator*/
#include <stdio.h>
int main()
       float x, y;
       printf("Enter two numbers: ");
       scanf("%f %f", &x, &y);
       printf("x = %.2f \cdot y = %.2f \cdot n", x, y);
       printf("Sum = %.2f\n", x+y);
       printf("Difference = %.2f\n", x-y);
       printf("Product = %.2f\n", x*y);
       if(y != 0)
                printf("Division = %.2f\n", x/y);
       else
                printf("Division not possible (y=0)\n");
       return 8;
supriya@ubuntu:~/Desktop/c/chp1$ ./arith
Enter two numbers: 46 16
x = 46.00
y = 16.88
Sum = 62.00
Difference = 30.00
Product = 736.88
Division = 2.88
```

```
/* Display equation of line ax + by = c*/
#include <stdio.h>
Int main()
{
        int a=5, b=8, c=18;
        printf("Equation of line: %dx + %dy = %d\n", a, b, c);
        return 0;
}
suprlya@ubuntu:~/Desktop/c/chp1$ ./line
Equation of line: 5x + 8y = 18
```

```
/*perimetre and area*/
#include <stdio.h>
#include <math.h>
#define PI 3.1416
int main()
{
    float x,y,r,area,perimeter;
        printf("Enter coordinates of point on circumference: ");
        scanf("%f %f",&x,&y);
        r = sqrt(x*x + y*y);
        perimeter = 2 * PI * r;
        area=PI * r * r;
        printf("Radius = %.2f\nPerimeter = %.2f\nArea = %.2f\n", r, perimeter, area);
        return 0;
}
supriya@ubuntu:-/Desktop/c/chp1$ ./circle
Enter coordinates of point on circumference: 4 5
Radius = 6.40
Perimeter = 40.23
Area = 128.81
```

supriya@uountu:~/Desktop/c/clipis col clicte.

```
/* Convert Celsius Fahrenheit*/
#include <stdio.h>
int main()
£
        float c, f;
        printf("Enter temperature in Celsius: ");
        scanf("%f", &c);
        f = (9*c/5) + 32;
        printf("Celsius to Fahrenheit: %.2f\n", f);
        printf("Enter temperature in Fahrenheit: ");
        scanf("%f", &f);
        c = (f - 32) * 5 / 9;
        printf("Fahrenheit to Celsius: %.2f\n", c);
        return 0;
supriya@ubuntu:~/Desktop/c/chp1$ ./convert
Enter temperature in Celsius: 36
Celsius to Fahrenheit: 96.80
Enter temperature in Fahrenheit: 97.5
Fahrenheit to Celsius: 36.39
```