```
4. Managing Input and output operations
* Reading a character
                                                       (multinimal tour)
          itardavid Input - from key boroard
                                                            int count : 15
          Itendayd owput -> on screen.
Reacting a stright character can be done by using the teurchon getchast or scent
                     Uniable - rane = getcharceppe for what with the mil
          Egs char manus
                name = getchor();
                                                     ادمالد ر دورس حدمن
1) demonstrating of getchast function.
         Andudi < 11000 h>
          magn ()
          char answers
          Pront ("would you eske to know my name ? (")) = mis" Ham!
          Printf ("Type y for yes and N for Nos");
           annous = gerchan ();
           ff (answer = = '41 | answer = = '41)
                Printf (" My rane & Buy (n");
          Elle
               print (" You are good for nothery ("))
 2) Wing Ealpha or Ealight
          # moludexitation h>
         - Producte x ctype. h>
          main()
            that charlactors
            PRAH(" pres any key (n");
           character o getchar();
            f (fralpha (charlacter) >0)
               Printf (" The character & a letter ");
            elle
              of (braight (character) > 0)
             . Printf("The character is a digit");
           Elle
                Prints (" The chauter is not a alphanumeric.");
         3
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supriya 🥳

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the mitting of chanceron.
                                                MOST LATERATE LATER
  elke getchar, there is an analogou function putchast for writing characters one at
 a time to the terminal
                                    rain han dar to pains spain paincin (8
             put that (variable_name))
3) demonstrating of purchase (Blower, toupper, to lower).
    # focudex 1 too. h)
                               (1,711 & must 1,715 crans 1, 11 7 must keep)
     min 12 (1900) (1900) was must be redented to be the Hamil
                                  icat (u 1, d 1, 150", 4 no, name 1);
      ર
        charl alphabet;
        Pront (a sufer an alphabet / 6") ) in 1000 min
        alphabet = gerchan ();
       of (Blown (apphabet))
                                    Eccompa, Coul, alist to Phin) House
          Putchas (toupper (alphabet)) in bon resours tour what ") thing
        Else
           putchar (tolawer (aptabet)); ((5 mara, or, ral 27 % b. 00) Hold
* formatted input
   by sant function
                          1 Sear ( or del f olso, 40, 26, nunx);
            Scant (a control typid " onl' ond : " tondus : on min my
4) inputting integer numbers.
    #mulide citaro. h>
     maine)
      8nt a,b,c,x,y,2;
      gut bidini
                                                                 tech by
      Pront ( " Enter three enteger number (nn);
                                                                 () 1901)
      montf(" " ld . ld . ld / n", a, b, c) $ '5 h de . D / " 1 - D ! . U. U ) 1 most)
   lly we can use the reant-function to read the propert from buy board.
                                 Profit (vas ud brad for notos) the
5) Inputting Red numbers.
                                         (Chal man is all a) Hotel
      man ()
     { floar 2,4,2;
        double p, y)
                                     opposed no 1 steen fanct celui-
       Monte (41, 41, 8x, 8y);
       Prontf (a 2 = ext | ny = ext | n", 2, 41)
       Print ("value of -p and q:"))
       Scart (well and ellti, ap, & q)> will interpolation
       brout ( a cut int ; bid)
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Manager of Collins
  A suputing character things
                                             1. we or 1. well a wind water month of it wast. Econol
                                                                                                                              to the terminal
 6) keading ming wing of we and it wis
                                                                                             Mitches (you light. pour);
               matn()
                                                 Consider to property toupper to being to
                ક્
                   for no;
                 that ramet 157, rames tir], rames (157)
                  Print (" Enter source number and name one In");
                  scanf (u 11. d 1/150", & no, name 1);
                  butter (airq iril 1 /2", bo' women);
                  Month ( & Enter sould number and name two ( ))
                                                                                                               appropriate description
                 scant ( a.l.d ils 11, 8 no , ramez)
                                                                                                              ((hdodyln) Bookin))
                  Mont (41/1d % 15/10", no, namez);
                 ment (" Enter Julian number and name three ("ill; ganot) horself
                 Scanfluild 1/1821, ano, mane 3)
                  prent (49.d & 185/04, no name 3); ((8 smart on, 19/1) & b.194)
  * dutution of Errors in input
                                                                                                                                       Ellant fundion
                              If scant ("ind " in f " is", & a, & b, name);
                                                                                                                 iteant ( Frenty of
                     We have to Enter the Input in Saine formad only
   7)
                                                                                                                               it forwale eitaro. h>
         mount)
          2
             Int a;
                                                                                                                            int a, b, c, 2, 4, 25
           toat b;
            400x ()
                                                                             e(pal equinated my ment into a hours
            Printf ("Enter values of a, b, and closily 5, b, "b, b, b, b, b)
            f (scanf (",d o,f o), c", 4a, 8b, &c") ==3), "(a) b) b) b) o) Ham
                     sputting ever numbers.
                    prontf (" Error on Imputin");
                                                                                                                                                    () about
           3
* commoney and scanf format code.
                                lingue character was a first of the first of
            .1. C
                                 devina Integer
                                  - 1 coating point value
    suprisher of leading point value contrage, disting the post
                                                                                                            property of the feet of the first
            01.9
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ol. P - Those the
                                                   This par and the
      4.1 - decimal, hexadecimal and outal for
                                                       KnoUsts Day a m
      11.0 - octal Phtequal
            - 1mud
             - unsigned deamal Pat
            - huxaiducimal int
                                   164 2131 Hal v LAUS 4) HOLLY C
      "1. [..] - 1 ming of words.
                                                       ant little Ray
* formatted output
                                              proprie (2 total or place 1)
                                                      3cant (v 12 431 11 b)
      using proff function.
           Printf ("control string", and 1, ourge, and 3- margnos series is the
 Pt 81 Broslav to the scant-Punction.
s) ombor of where the class of the discours with the man is a maline (8)
                                                               in orally.
            1.wd
    marn ()
    Ent m= 12345;
                           mainten the wing ju chast of and putchance
                                                      A Muncu with his
     month ("idiny m);
                                                               continue for
     but (an 109/ b), ws;
     mutt ( oir 010 9/ uil w);
                                                                 ंतं । १००१)
    3
                                            Minte (ventury a character )
9) output of real numbers.
                                                          (()に)かり(=か)
      mance
                                                 Propert (v. 100 Enteract: 1);
      float y = 98.76543
                                                            Ruthan (co)
      Wentt (ail 4. 14/1/11, A)?
                                                                neteum or
      prentting flow, 41%
      MANHA (4.1. 10. 2 el n", y);
                                                             multiple input
      Drontf (41) 12.4 8/10", -41;
                                                     Hirelada stelio hx
    2
                                                            intermedia to 2
* Enhancing the Readoubility of output
                                                         Exilix in
     1. provide knough blank space between two numbers
     2. Introduce appropriate headings and vouscuste name in the output
     3. print spellal musages whenever à peculiar condition, occurring the
       Output
                                     Continue and Phis bod in Hord
    4. Inhoduce blank einer between the Emportant sections of the curput
                                                              יט אווא טי
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upriya 🥳

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10) Baile Input and output
                                                                                                in tobs ban langulation, tomish
              # Include xirdio.h>
                Entranco
                   કૃ
                     enta)
                                                                                                                                              the distinct lot
                   float b;
                    char () month (" enter a enteger (");
                   Scanf ( " 1.d", & a);
                                                                                                                                                        dolunui Hara pain
                   prent (" enter a float: ");
                  Print (u enter a character; "); [ " print tame of a later of the print tame of a later of the print tame of the print ta
                    Scant (4% +11, 21 b);
                    Pront (" you entered : ", d; 1, 2, f; "), c/n", a/b/2); " rapital to the
                     octurn of
           B
    11) thatatty the wing getchart () and putchases
                 # Include < Irdio. h>
                 gut may ()
                      chay eh)
                     Print ("Enter a characters")
                     Ch = gerchar (?)
                      Prontf ("you entered : "))
                       purchas (ch);
                       return o;
               3
                                                                                                                                                     これーなりまれ、日ではみかか
   12) multiple input
                  # mulude < stdio. h>
                       introon () 2
                                9nt 214, 21
                               Print (" total three integrer!");

Jeant (" " d. - Ld " ld", & a, & y, & 2);
                                                                                                                               into special merceges appearation
                       month ("Sum= 1. d) n", 2+4 +2))
                               prontf (" prg = 1.d In", 244 + 2);
                 2010 pront cuarg =0). . 2 f [nii] (2+4+2) [30);
                             return o;
priya 🚜
```

```
#include <stdio.h>
#include <math.h>
int main() {
    float a = 35.7, b = 50.21, c = -23.73, d = -46.45;
    printf("Rounded values:\n");
    printf("%.2f -> %d\n", a, (int)round(a));
    printf("%.2f -> %d\n", b, (int)round(b));
printf("%.2f -> %d\n", c, (int)round(c));
    printf("%.2f -> %d\n", d, (int)round(d));
    return 0;
3
supriya@ubuntu:~/Desktop/c/chp4$ ./int
Rounded values:
35.70 -> 36
50.21 -> 50
-23.73 -> -24
-46.45 -> -46
```

```
#include <stdio.h>
int main()
{
    int a, b;
   printf("Enter two two-digit integers: ");
   scanf("%d %d", &a, &b);
    int d1 = b % 10;
   int d2 = b / 10;
   int p1 = a * d1;
   int p2 = a * d2;
   int result = a * b;
                 %d\n", a);
   printf("
                 %d\n", b);
   printf(" x
    printf(" -----\n");
    printf("%2d x %d is %4d\n", d1, a, p1);
   printf("%2d x %d is %4d\n", d2, a, p2);
   printf("Add them %4d\n", result);
    return 0:
supriya@ubuntu:~/Desktop/c/chp4$ ./mul
Enter two two-digit integers: 46 16
      46
      16
 X
6 x 46 is
           276
1 x 46 is
Add them 736
```

```
/* Read 3 integers and output in different ways*/
#include <stdio.h>
int main()
    int a, b, c;
    printf("Enter three integers: ");
    scanf("%d %d %d", &a, &b, &c);
    printf("%d ", a);
printf("%d ", b);
    printf("%d\n", c);
    printf("%d %d %d\n", a, b, c);
printf(a > 0 ? " " : "");
printf(b > 0 ? " " : "");
    printf(c > 0 ? " ": "");
    printf("%d %d %d\n", a, b, c);
    return 0;
supriya@ubuntu:~/Desktop/c/chp4$ ./out
Enter three integers: 1 2 3
1 2 3
1 2 3
```

```
/*Exponential format printing*/
#include <stdio.h>
int main()
{
    double x = 10.45678;
    printf("(a) %.2e\n", x);
    printf("(b) %.4e\n", x);
    printf("(c) %.8e\n", x);
    return 0;
}
supriya@ubuntu:~/Desktop/c/chp4$ ./dec
(a) 1.05e+01
(b) 1.0457e+01
(c) 1.04567800e+01
```

```
/* Fixed-point format printing*/
#include <stdio.h>
int main()
{
    double x = 345.6789;
    printf("(a) %.2f\n", x);
    printf("(b) %.5f\n", x);
    printf("(c) %.0f\n", x);
    return 0;
}

supriya@ubuntu:~/Desktop/c/chp4$ ./fix
(a) 345.68
(b) 345.67890
(c) 346
```

```
/* Name formatting*/
#include <stdio.h>
int main()
{
    char fname[20], mname[20], lname[20];
    printf("Enter first, middle, and last name: ");
    scanf("%s %s %s", fname, mname, lname);
    printf("(a) %s %c. %s\n", fname, mname[0], lname);
    printf("(b) %c.%c. %s\n", fname[0], mname[0], lname);
    printf("(c) %s.%c.%c.\n", lname, fname[0], mname[0]);
    return 0;
}

supriya@ubuntu:~/Desktop/c/chp4$ ./name
Enter first, middle, and last name: su priya gudela
(a) su p. gudela
(b) s.p. gudela
(c) gudela.s.p.
```

```
/*Table of data*/
#include <stdio.h>
int main()
{
    char name1[20], name2[20];
    int code1, code2;
    float price1, price2;
    printf("Enter name, code, price for first item: ");
    scanf("%s %d %f", name1, &code1, &price1);
    printf("Enter name, code, price for second item: ");
    scanf("%s %d %f", name2, &code2, &price2);
    printf("%-10s %6s %10s\n", "Name", "Code", "Price");
    printf("%-10s %6d %10.2f\n", name1, code1, price1);
    printf("%-10s %6d %10.2f\n", name2, code2, price2);
    return 0;
supriya@ubuntu:~/Desktop/c/chp4$ ./table
Enter name, code, price for first item: fan 4550 6799
Enter name, code, price for second item: motor 76134 650
             Code
Name
                       Price
fan
             4550
                     6799.00
motor
           76134
                     650.00
```