| **Ex.No.1** | **Console Input and Output Functions** | **Reg.No: URK22CS1200** |
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| 1. Write a C program to perform addition, subtraction, multiplication and division of 2 numbers.   **Aim:**  To perform addition, subtraction, multiplication and division of 2 numbers.  **Algorithm:**  Step 1: Start the program.  Step 2: Declare the required variables a (1st number) and b(2nd number)  Step 3: Declare the required variables sm, diff, my, div  Step 4: Read the Input values a and b  Step 5: Compute sm = a + b, dif = a - b, my = a \* b, div = a / b  Step 6: Display “sum is”,sm.  Step 7: Display “difference is”,dif.  Step 8: Display “Multiplication is”,my.  Step 9: Display “Division is”,div.  Step 10: Stop the Program.  **Program:**  #include <stdio.h>  void main()  {  int a,b;  float sm,dif,my,div;  printf("Enter the value of a:");  scanf("%d",&a);  printf("Enter the value of b:");  scanf("%d",&b);  sm = a+b;  dif = a-b;  my = a\*b;  div = a/b;  printf("Sum is :%f\n",sm);  printf("Difference is :%f\n",dif);  printf("Multiplication is :%f\n",my);  printf("Division is :%f\n",div);  }  **Output:**    **Result:**  This program is executed successfully and the arithmetic functions is displayed in the screen using input and output function. |
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| b) Write a C program to swap values of 2 numbers with and without a third variable.  **Aim:**  To swap value of 2 numbers with and without a third variable.  **Algorithm:**  Step 1: Start the program.  Step 2: Declare the required variables 1st value(a) and 2nd value(b) and third variable(x)  Step 3: Read the Input values a and b  Step 4: Swap a and b using a third variable x  Step 5: Print the swapped value of a and b  Step 6: Declare the required variables 1st value(c) and 2nd value(d)  Step 7: Read the Input values c and d  Step 8: Swap c and d [c = c+d,d = c-d,c = c-d]  Step 9: Print the swapped value of c and d  Step 10: Stop the Program.  **Program:**  #include <stdio.h>  void main()  {  int a,b,x;  float c,d;  printf("a and b are with another variable\n");  printf("Enter the value of a:");  scanf("%d",&a);  printf("Enter the value of b:");  scanf("%d",&b);  x = a;  a = b;  b = x;  printf("a = %d\n",a);  printf("b = %d\n",b);  printf("c and d are without variable\n");  printf("Enter the value of c:");  scanf("%f",&c);  printf("Enter the value of d:");  scanf("%f",&d);  c = c + d;  d = c - d;  c = c - d;  printf("c = %f\n",c);  printf("d = %f\n",d);  }  **Output:**    **Result:**  This program is executed successfully and swapped with and without the third variable is displayed in the screen using input and output function. |
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| c) Write a C program to read a 3 digit number and produce the following output  **Aim:**  To read a 3 digit number and produce the output  **Algorithm:**  Step 1: Start the program.  Step 2: Declare the required variables num, h(number of hundreds), t(number of tens), o(number of ones)  Step 3: Read the Input value of num  Step 4: Compute h = num / 100, num = num % 100, t = num / 10, o = num % 10  Step 5: Print hundreds,tens and ones  Step 6: Stop the Program.  **Program:**  #include <stdio.h>  void main()  {  int num,h,t,o;  printf("Enter a three digit number:");  scanf("%d",&num);  h = num / 100;  num = num % 100;  t = num / 10;  o = num % 10;  printf("hundreth = %d\n",h);  printf("Tenth = %d\n",t);  printf("Ones = %d\n",o);  }  **Output:**    **Result:**  This program is executed successfully and gave the right output of the number of hundreds,tens and ones is displayed in the screen using input and output function. |
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| **Ex.No.1** | **Console Input and Output Functions** | **Reg.No: URK22CS1200** |
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| d) Write a C program to accept the number of days from the user and convert into years, weeks and days.  **Aim:**  To accept the number of days from the user and convert into years, weeks and days.  **Algorithm:**  Step 1: Start the program.  Step 2: Declare the required variables num, y(number of years), w(number of weeks), d(number of days)  Step 3: Read the Input value of num  Step 4: Compute y = num / 365, num = num % 365, w = num / 7, d = num % 7  Step 5: Print hundreds,tens and ones  Step 6: Stop the Program.  **Program:**  #include <stdio.h>  void main()  {  int days,y,w,d;  printf("Enter the number of days:");  scanf("%d",&days);  y = days / 365;  days = days % 365;  w = days / 7;  d = days % 7;  printf("number of years = %d\n",y);  printf("number of weeks = %d\n",w);  printf("number of days = %d\n",d);  }  **Output:**    **Result:**  This program is executed successfully and the number of years, weeks and days are displayed in the screen using input and output function. |
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| e) Write a C program to accept the temperature in fahrenheit and convert to celsius.  **Aim:**  To accept temperature in fahrenheit and convert it into celsius.  **Algorithm:**  Step 1: Start the program.  Step 2: Declare the required variable F( fahrenheit) and C(celsius)  Step 3: Read the Input value F  Step 4: Compute (F - 32)/1.8  Step 5: Print the temperature in Celsius  Step 6: Stop the Program.  **Program:**  #include <stdio.h>  void main()  {  float f,c;  printf("Enter the temperature in fahrenheit:\n");  scanf("%f",&f);  c = (f - 32)/1.8;  printf("The temperature in celcius :%f",c);  }  **Output:**    **Result:**  This program is executed successfully and the temperature in farenheit is converted to celcius. |
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