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| **20 C Programs Code**  **Converted to C#**  **By**  **Yekolla Manoj**  **27-Jan-2022** |

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| Project 1 |
| |  | | --- | | **Wri write C# Code to Print Multiplication Table for a given number ?** | |
| Code : |
| using System;  // A C# Code to Display the Multiplacation Table, given by the user(Using While Loop).  namespace Day2Project6\_MultiplyTabel\_WhileLoop\_  {  internal class Program  {  static void Main(string[] args)  {  //Variable declaration Section  int input, i = 1;  Console.WriteLine("Which Tabel Number to print :");  //Reading Inputs Section  input = Convert.ToInt32(Console.ReadLine());  //Program Logic Section  Console.WriteLine("\n::: Displaying Using String Concatination Method :");  while (i <= 10)  {  //Printing Output using String Concatination  Console.WriteLine(input + "x" + i + "=" + input \* i);  i++;  }  Console.WriteLine("\n Displaying Using String Formating Method :");  i = 1;  while (i <= 10)  {  //Printing Output using String Formating  Console.WriteLine("{0} x {1} = {2}", input, i, input \* i);  i++;  }  Console.ReadLine();  }  }  } |
| Output : Below the output  Screenshot (3) |

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| Project 2 |
| |  | | --- | | **Wri write a C# Code to Print Factorial of a given number ?** | |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace \_20\_Programs\_C  {  internal class Program  {  static void Main(string[] args)  {  int i, fact = 1, number;  Console.Write("Enter any Number: ");  number = int.Parse(Console.ReadLine());  for (i = 1; i <= number; i++)  {  fact = fact \* i;  }  Console.Write("Factorial of " + number + " is: " + fact);  Console.ReadLine();  }  }  } |
| Output :  Screenshot (5) |

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| Project 3 |
| |  | | --- | | **Writ Write a C# Code to Print Sum of N Natural Numbers ?** | |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Sum\_N\_Natural\_Num  {  internal class Program  {  static void Main(string[] args)  {  int i, n, sum = 0;  Console.Write("\n\n");  Console.Write("Display n terms of natural number and their sum:\n");  Console.Write("----------------------------------------------");  Console.Write("\n\n");  Console.Write("Input Value of terms : ");  n = Convert.ToInt32(Console.ReadLine());  Console.Write("\nThe first {0} natural number are :\n", n);  for (i = 1; i <= n; i++)  {  Console.Write("{0} ", i);  sum += i;  }  Console.Write("\nThe Sum of Natural Number upto {0} terms : {1} \n", n, sum);  Console.ReadLine();  }  }  } |
| Output:  Screenshot (22) |
| Project 4 |
| |  | | --- | | **Wri Write a C# Code to Print Factorial using Functions ?** | |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Factorial\_using\_function\_CSharp  {  internal class Program  {  public static void PrintOutput(int n)  {  Console.WriteLine("\nFactorial of {0} is {1}", n, Factorial(n));  }  public static int Factorial(int input)  {  int fact = 1, i;  for (i = 1; i <= input; i++)  fact = fact \* i;  return fact;  }  static void Main(string[] args)  {  int input;  //Reading Inputs Section  Console.Write("\n\nEnter any Number, To find It's Factorial : ");  input = Convert.ToInt32(Console.ReadLine());  //Program Logic Section  PrintOutput(input);    Console.ReadLine();    }  }  } |
| Output : Below The Output  Screenshot (24) |

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| Project 5 |
| **Write a C# Code to Print Factorial using Recursion?** |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Factroial\_using\_Recursion  {  internal class Program  {  static void Main(string[] args)  {  Console.WriteLine("Enter a number");  int number = Convert.ToInt32(Console.ReadLine());  long fact = GetFactorial(number);  Console.WriteLine("{0} factorial is {1}", number, fact);  Console.ReadLine();  }  private static long GetFactorial(int number)  {  if (number == 0)  {  return 1;  }  return number \* GetFactorial(number - 1);  }  }  } |
| Output: Below the Output  Screenshot (50) |

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| Project 6 |
| **Write a C# Code to Print Factors of a given number?** |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Factors\_given\_Number  {  internal class Program  {  static void Main(string[] args)  {  int input, i;  Console.WriteLine("\n Welcome To Find Factors of the Given Number");  //Reading Inputs Section  Console.Write("\n\nEnter any Number, To find It's Factor : ");  input = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("\nThe Factors of the Given Number are :\n");  //Program Logic Section  for (i = 1; i <= input; i++)  {  if (input % i == 0)  Console.WriteLine(i);  }  Console.WriteLine("\n\naa");  Console.ReadLine();  }  }  } |
| Output :  Screenshot (52) |

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| Project 7 |
| **Write a C# Code to Print POWER of a given number [a power b] ?** |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Print\_APowerB\_\_CSharp  {  internal class Program  {  static void Main(string[] args)  {  int a, b, result = 1, i;  Console.Write("\n\nEnter any Number, To find It's Power : ");  a = Convert.ToInt32(Console.ReadLine());  Console.Write("\n\nEnter Power Value, for {0} : ", a);  b = Convert.ToInt32(Console.ReadLine());  //Program Logic Section  for (i = 1; i <= b; i++)  result = result \* a;  Console.WriteLine("\nThe Value of [{0} POWER {1}] is : {2}", a, b, result);  Console.ReadLine();  }  }  } |
| Output :  Screenshot (54) |

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| Project 8 |
| **Write a C# Code to Print Given number is Prime Number or Not** |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace GivenNum\_Prime\_Num\_or\_Not  {  internal class Program  {  static void Main(string[] args)  {  int input, i;  Console.Write("\n\nEnter any Number : ");  input = Convert.ToInt32(Console.ReadLine());  //Program Logic Section  for (i = 2; i < input; i++)  {  if (input % i == 0)  break;  }  //Printing Output Section  if (i == input)  Console.WriteLine("\nYes, {0} is a Prime Number", input);  else  Console.WriteLine("\nNo, {0} is Not a Prime Number", input);    Console.ReadLine();  }  }  } |
| Output :  Screenshot (57) |

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| Project 9 |
| **Write a C# Code to Check given Number is Prime Number Using Functions** |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace PrimeNum\_using\_Function  {  internal class Program  {  public static bool IsPrimeNumber(int input)  {  int i;  for (i = 2; i < input; i++)  {  if (input % i == 0)  break;  }  if (i == input)  return true;  else  return false;  }  static void Main(string[] args)  {  int input;    Console.Write("\n\nEnter any Number, To find Wether it is a Prime Number or Not : ");  input = Convert.ToInt32(Console.ReadLine());    if (IsPrimeNumber(input))  Console.WriteLine("\nYes, {0} is a Prime Number", input);  else  Console.WriteLine("\nNo, {0} is Not a Prime Number", input);    Console.ReadLine();  }  }  } |
| Output :  Screenshot (59) |
| Project 10 |
| **Write a C# Code to Print Prime Numbers in Given Range** |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace PrimeNums\_given\_Range  {  internal class Program  {  public static bool IsPrimeNumber(int input)  {  int i;  for (i = 2; i < input; i++)  {  if (input % i == 0)  break;  }  if (i == input)  return true;  else  return false;  }  static void Main(string[] args)  {  int a, b, i;      Console.Write("\n\nEnter Starting Range, To find Prime Numbers : ");  a = Convert.ToInt32(Console.ReadLine());  Console.Write("\n\nEnter Ending Range, To find Prime Numbers : ");  b = Convert.ToInt32(Console.ReadLine());  for (i = a; i <= b; i++)  {  if (IsPrimeNumber(i))  Console.WriteLine(i);  }    Console.ReadLine();  }  }  } |
| Output :  Screenshot (61) |
| Project 11 |
| **Write a C# Code to Print Fibonacci Series** |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Fibonacci\_Series\_given\_Num  {  internal class Program  {  static void Main(string[] args)  {  int n, i, a = 0, b = 1, c;      Console.Write("\n\nEnter Any Number : ");  n = Convert.ToInt32(Console.ReadLine());  Console.Write("\nFibonacci Series: 0 1");  for (i = 1; i <= n - 2; i++)  {  c = a + b;  a = b;  b = c;  Console.Write(" {0}", c);  }    Console.ReadLine();  }  }  } |
| Output :  Screenshot (63) |

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| Project 12 |
| **Write a C# Code to Check given number is Armstrong Number** |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Armstrong\_Num\_CSharp  {  internal class Program  {  static void Main(string[] args)  {  int n, rem, m, result = 0;      Console.Write("\n\nEnter any Number To Check, Armstrong Number or Not : ");  n = Convert.ToInt32(Console.ReadLine());  //Logic Section  m = n;  while (m > 0)  {  rem = m % 10;  m = m / 10;  result = result + rem \* rem \* rem;  }  //Printing Output Section  if (result == n)  Console.WriteLine("\nYes, {0} is an ARMSTRONG Number", n);  else  Console.WriteLine("\nNo, {0} is Not an ARMSTRONG Number", n);    Console.ReadLine();  }  }  } |
| Output :  Screenshot (66) |

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| Project 13 |
| **Write a C# Code to Check given number is Armstrong Number Using Functions** |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace ArmstrongNum\_using\_Function  {  internal class Program  {  public static bool IsArmstrong(int n)  {  int m, result = 0, rem;  m = n;  while (m > 0)  {  rem = m % 10;  m = m / 10;  result = result + rem \* rem \* rem;  }  //Printing Output Section  if (result == n)  return true;  else  return false;  }  static void Main(string[] args)  {  int n;      Console.Write("\n\nEnter any Number To Check, Armstrong Number or Not : ");  n = Convert.ToInt32(Console.ReadLine());  //Function Calling Section  if (IsArmstrong(n))  Console.WriteLine("\nYes, {0} is an ARMSTRONG Number", n);  else  Console.WriteLine("\nNo, {0} is Not an ARMSTRONG Number", n);    Console.ReadLine();  }  }  } |
| Output :  Screenshot (68) |
| Project 14 |
| **Write a C# Code to Print Armstrong Numbers in given range** |
| Code : |
| using System;  namespace ArmstrongNumgivenRange  {  internal class Program  {  public static bool IsArmstrong(int n)  {  int m, result = 0, rem;  m = n;  while (m > 0)  {  rem = m % 10;  m = m / 10;  result = result + rem \* rem \* rem;  }  //Printing Output Section  if (result == n)  return true;  else  return false;  }  static void Main(string[] args)  {  //Variable Declaration Section  int a, b, i;    //Reading Inputs Section  Console.Write("\n\nEnter Starting Range of Numbers : ");  a = Convert.ToInt32(Console.ReadLine());  Console.Write("\n\nEnter Ending Range of Numbers : ");  b = Convert.ToInt32(Console.ReadLine());  Console.Write("\n The ArmStrong Numbers in the Given Range {0} to {1} are :", a, b);  for (i = a; i <= b; i++)  {  if (IsArmstrong(i))  Console.Write(" {0}", i);  }    Console.ReadLine();  }  }  } |
| Output :  Screenshot (70) |

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| Project 15 |
| **Write a C# Code to Print Sum of Digits in a given number** |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace SumofDigits\_given\_Num  {  internal class Program  {  static void Main(string[] args)  {  int n, m, rem, result = 0;      Console.Write("\n\nEnter a Number to Find Its Sum of Digits : ");  n = Convert.ToInt32(Console.ReadLine());  //Logic Section  m = n;  while (m > 0)  {  rem = m % 10;  m = m / 10;  result = result + rem;  }  Console.Write("\nSum of Digits of {0} is {1}", n, result);    Console.ReadLine();  }  }  } |
| Output :  Screenshot (72) |

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| Project 16 |
| **Write a C# Code to Print Reverse of a Given Number** |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace GivenNum\_Reverse  {  internal class Program  {  static void Main(string[] args)  {  int n, rev = 0, rem, m;      Console.Write("\n\nEnter any Number to Reverse It : ");  n = Convert.ToInt32(Console.ReadLine());  //Logic Section  m = n;  while (m > 0)  {  rem = m % 10;  m = m / 10;  rev = rev \* 10 + rem;  }  Console.Write("\nReversing of {0} is {1}", n, rev);    Console.ReadLine();  }  }  } |
| Output :  Screenshot (74) |

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| Project 17 |
| **Write a C# Code to Print given number is Palindrome Number or Not** |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Palindrome\_or\_Not  {  internal class Program  {  static void Main(string[] args)  {  int n, rev = 0, rem, m;      Console.Write("\n\nEnter any Number to Check, If It is a Palindrome ? : ");  n = Convert.ToInt32(Console.ReadLine());    m = n;  while (m > 0)  {  rem = m % 10;  m = m / 10;  rev = rev \* 10 + rem;  }  if (n == rev)  Console.WriteLine("Yes, {0} Is a Palindrome Number", n);  else  Console.WriteLine("No, {0} is Not a Palindrome Number", n);    Console.ReadLine();  }  }  } |
| Output :  Screenshot (76) |

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| Project 18 |
| **Write a C# Code to Swap Numbers using Third Variable** |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace SwapNums\_using\_Third\_Variable  {  internal class Program  {  static void Main(string[] args)  {  int a = 6, b = 3, t;    Console.WriteLine("\nBefore Swap : ");  Console.WriteLine("\t a = {0} , b = {1}", a, b);  //Logic Section  t = a;  a = b;  b = t;  //Printing Output Section  Console.WriteLine("\nAfter Swap : ");  Console.WriteLine("\t a = {0} , b = {1}", a, b);    Console.ReadLine();  }  }  } |
| Output :  Screenshot (78) |

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| Project 19 |
| **Write a C# Code to Swap Numbers without using Third Variable** |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Swap\_without\_Using\_Third\_Var  {  internal class Program  {  static void Main(string[] args)  {  int a = 3, b = 8;    Console.WriteLine("\nBefore Swap : ");  Console.WriteLine("\t a = {0} , b = {1}", a, b);  //Logic Section  a = a + b;  b = a - b;  a = a - b;  //Printing Output Section  Console.WriteLine("\nAfter Swap : ");  Console.WriteLine("\t a = {0} , b = {1}", a, b);    Console.ReadLine();  }  }  } |
| Output :  Screenshot (80) |

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| Project 20 |
| **Write a C# Code to Print Stars(\*) in a - Right Angled Triangle Pattern** |
| Code |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Print\_Stars\_\_Right\_angle\_Triangle  {  internal class Program  {  static void Main(string[] args)  {  int n, i, j;    Console.Write("\n Enter no. of rows to be Printed : ");  n = Convert.ToInt32(Console.ReadLine());  //Logic Section  for (i = 1; i <= n; i++)  {  for (j = 1; j <= i; j++)  {  Console.Write("\* ");  }  Console.Write("\n");  }    Console.ReadLine();  }  }  } |
| Output :  Screenshot (82) |