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| 20 C Programs converted to C# Programs    By  Anusha Bellala |

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| 1.Write a program to print Multiplication Table for a given number. |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace MultiplicationTableConsole  {  internal class Program  {  static void Main(string[] args)  {  //variable declaration  int input, i;  //read the data from user  Console.WriteLine("{Enter the Number:");  input = Convert.ToInt32(Console.ReadLine());  //logic  for (i = 1; i <= 10; i++)  {  Console.WriteLine(input + "x" + i +"=" + input\*i);  }  //print output  Console.ReadLine(); |
| Output: |

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| 2.Write a program to print Factorial of given number. |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace FactorialNumberConsole  {  internal class Program  {  static void Main(string[] args)  {  //variable declaration  int input, i, product = 1;  //read data from the user  Console.WriteLine("Enter the Number:");  input = Convert.ToInt32(Console.ReadLine());  //logic  for(i=1;i<=input;i++)  {  product = product \* i;  }  //print output  Console.WriteLine(product);  Console.ReadLine();  }  }  } |
| Output: |

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| 3.Write a program to print Sum of n natural numbers. |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace NaturalNumbers  {  internal class Program  {  static void Main(string[] args)  {  //variable declaration  int input, sum = 0,i;  //read the data from user  Console.WriteLine("{Enter the Number:");  input = Convert.ToInt32(Console.ReadLine());  //logic  for(i=1;i<=input;i++)  {  sum = sum + i;    }  //print output  Console.WriteLine("sum="+sum);  Console.ReadLine();  }  }  } |
| Output: |

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| 4.Write a program to print Factorial using Functions. |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace FactorialusingFunctions  {  internal class Program  {  int Factorial(int input)  {  int fact = 1, i;  for (i = 1; i <= input; i++)  fact = fact \* i;  return fact;  }  //purpose to read a number and print its factorial  static void Main(string[] args)  {  //variable declaration  int input, i, fact = 1;  int input1, fact1 = 1;  //read the data from user  Console.WriteLine("enter first number:");  input = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("enter second number:");  input1 = Convert.ToInt32(Console.ReadLine());  for (i = 1; i <= input; i++)  {  fact = fact \* i;  }  for (i = 1; i <= input1; i++)  {  fact1 = fact1 \* i;  }  //print the output  Console.WriteLine("Factorial of {0} is {1}", input, fact);  Console.WriteLine("Factorial of {0} is {1}", input1, fact1);  Console.ReadLine();    }  }  } |
| Output: |

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| 5.Write a program to print Factorial using Recursion. |
| using System;  using System.Cusing System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Factorollections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace FactorialUsingRecursion  {  internal class Program  {  //read a number and print factorial[using recursion]  static void Main(string[] args)  {  //variable declaration  int fn, sn;    //read the data from user  Console.WriteLine("enter first number:");  fn = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("enter second number:");  sn = Convert.ToInt32(Console.ReadLine());  int fact = Factorial(fn);  int fact1 = Factorial(sn);  //print the output  Console.WriteLine("Factorial of {0} is {1}", fn,fact);  Console.WriteLine("Factorial of {0} is {1}", sn, fact1);  Console.ReadLine();  }  private static int Factorial(int input)  {    if (input == 0)  return 1;  else  return input \* Factorial(input - 1);    }    }  } |
| Output: |

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| 6.Write a Program to print Factors of a given number. |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Factorsconsole  {  internal class Program  {  static void Main(string[] args)  {  //variable declaration  int input, i;  //read the data from user  Console.WriteLine("Enter the Number:");  input = Convert.ToInt32(Console.ReadLine());  //logic  for(i=1;i<=input;i++)  {  if (input % i == 0)  Console.WriteLine(i);  }  //print output  Console.ReadLine();  }  }  } |
| Output: |

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| 7.Write a program to print Power of a given number. |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace powernumConsole  {  internal class Program  {  static void Main(string[] args)  {  //variable declaration  int pow = 1,fn,sn;  //read the data from user  Console.WriteLine("Enter first number:");  fn = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter second number:");  sn = Convert.ToInt32(Console.ReadLine());  //logic  for (int i=1;i<=sn;i++)  {  pow = pow \* fn;  }  //print output  Console.WriteLine("p="+pow);  Console.ReadLine();  }  }  } |
| Output: |

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| 8.Write a program to check if a number is Prime or not. |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace PrimeNumberConsole  {t.  internal class Program  {  static void Main(string[] args)  {  //variable declaration  int i, input, count = 0;  //read the data from user  Console.WriteLine("Enter any number:");  input=Convert.ToInt32(Console.ReadLine());  //logic  for (i = 1; i <= input; i++)  {  if (input % i == 0)  count++;  }  //print output  if(count==2)  Console.WriteLine("{0} is Prime Number",input);  else  Console.WriteLine("{0} is Not a Prime Number",input);  Console.ReadLine();  }    }  } |
| Output: |

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| 9.Write a program to print number is prime or not by using funtions. |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace PrimeNumberUsingFunction  {    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)  {  //read the data from user  Console.WriteLine("Enter any number:");  int n = Convert.ToInt32(Console.ReadLine());    //print output  if (isPrimenumber(n))  Console.WriteLine("{0} is Prime Number", n);  else  Console.WriteLine("{0} is Not a Prime Number",n);  Console.ReadLine();  }  }  } |
| Output: |

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| 10.Write a program to print prime number between the range. |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace PrimeNumberRange  {  internal class Program  {  static void Main(string[] args)  {  int i, str, end, ctr, num;  //read the data from user  Console.WriteLine("Enter starting number:");  str = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter ending number:");  end = Convert.ToInt32(Console.ReadLine());  Console.Write("The prime numbers between {0} and {1} are : \n", str, end);  //logic  for (num = str; num <= end; num++)  {  ctr = 0;  for (i = 2; i <= num / 2; i++)  {  if (num % i == 0)  {  ctr++;  break;  }  }  if (ctr == 0 && num != 1)  Console.Write("{0} ", num);  }  Console.ReadLine();  }  }  } |
| Output: |

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| 11.Write a program to print Fibonacci series. |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Fibonaaci  {  internal class Program  {  static void Main(string[] args)  {  //variable declaration  int n, i, a = 0, b = 1,c;    //read the data from user  Console.WriteLine("Enter no. of terms to be printed(n>2):");  n=Convert.ToInt32(Console.ReadLine());    //logic  Console.WriteLine("Fibonacci series: 0 1");  for(i=1;i<=n-2;i++)  {  c = a + b;    a = b;  b = c;  Console.WriteLine("c="+c);  }  Console.ReadLine();  }  }  } |
| Output: |

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| 12.Write a program to print Armstrong number. |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Armstrong  {  internal class Program  {  static void Main(string[] args)  {  int n, rem, m, result = 0;  Console.WriteLine("Enter any number:");  n=Convert.ToInt32 (Console.ReadLine());  m = n;  while(m>0)  {  rem = m % 10;  m = m / 10;  result = result + rem \* rem \* rem;  }  if(result==n)  Console.WriteLine("{0} is Armstrong number",n);  else  Console.WriteLine("{0} is not a armstrong number",n);  Console.ReadLine();  }    }  } |
| Output: |

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| 13.Write a Program to print Armstrong number using Functions. |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace ArmstrongUsingFunction  {  internal class Program  {  public static bool IsArmstrong(int n)  {  int m, rem, result = 0;  m = n;  while (m > 0)  {  rem = m % 10;  m = m / 10;  result = result + rem \* rem \* rem;  }  return (result==n) ? true : false;    }  static void Main(string[] args)  {  //variable declaration  int n, rem, m, result = 0;  //read the data from user  Console.WriteLine("Enter any number:");  n=Convert.ToInt32(Console.ReadLine());  if (IsArmstrong(n))  Console.WriteLine("{0} is Armstrong number", n);  else  Console.WriteLine("{0} is not a Armstrong number", n);  Console.ReadLine();  }  }  } |
| Output: |

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| 14.Write a program to print Armstrong number in range. |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace ArmstrongRange  {  internal class Program  {  public static bool IsArmstrong(int n)  {  int m, rem, result = 0;  m = n;  while (m > 0)  {  rem = m % 10;  m = m / 10;  result = result + rem \* rem \* rem;  }  return (result == n) ? true : false;  }  static void Main(string[] args)  {  int a, b, i;  Console.WriteLine("Enter first number:");  a= Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter second number:");  b = Convert.ToInt32(Console.ReadLine());  for(i=a; i<=b; i++)  {  if(IsArmstrong(i))  Console.WriteLine(i);    }  Console.ReadLine();  }  }  } |
| Output: |

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| 15.Write a program to print Sum of digits of a given number. |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace SumOfDigits  {  internal class Program  {  static void Main(string[] args)  {  //variable declaration  int n, m, i, rem, result = 0;  //read the data from user  Console.WriteLine("Enter any number:");  n=Convert.ToInt32(Console.ReadLine());  //logic  m = n;  while(m>0)  {  rem = m % 10;  m = m / 10;  result = result+ rem;  }  Console.WriteLine("Sum of digits {0} is {1}",n, result);  Console.ReadLine();  }  }  } |
| Output: |

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| 16.Write a program to print reverse of a given number. |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace ReverseOfGivenNumber  {  internal class Program  {  static void Main(string[] args)  {  //variable declaration  int n, m, rev = 0, rem;  //read the data from user  Console.WriteLine("Enter any number:");  n=Convert.ToInt32(Console.ReadLine());  //logic  m = n;  while(m>0)  {  rem = m % 10;  m = m / 10;  rev = rev \* 10 + rem;  }  Console.WriteLine("Reverse of {0} is {1}",n, rev);  Console.ReadLine();  }  } |
| Output: |

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| 17.Write a program to print Palindrome. |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Palindrome  {  internal class Program  {  static void Main(string[] args)  {    //variable declaration  int n, m, rem, rev = 0;  //read the data from user  Console.WriteLine("Enter any number:");  n=Convert.ToInt32(Console.ReadLine());  //logic  m = n;  while(m>0)  {  rem = m % 10;  m = m / 10;  rev = rev \* 10 + rem;  }  if (n == rev)  Console.WriteLine("{0} is a Palindrome", n);  else  Console.WriteLine("{0} is not a Palindrome", n);  Console.ReadLine();  }    }  } |
| Output: |

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| 18.Write a program to print Swap numbers using third variable. |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace SwapNumber  {  internal class Program  {  static void Main(string[] args)  {  int a = 5, b = 8, t;  Console.WriteLine("Before Swap:\n");  Console.WriteLine("a={0},b={1}", a, b);  t = a;  a = b;  b = t;  Console.WriteLine("After Swap:\n");  Console.WriteLine("a={0},b={1}", a, b);  Console.ReadLine();  }    }  } |
| Output: |

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| 19.Write a program to print swap number without using third variable. |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace SwapNumberWithOutUsingThirdVariable  {  internal class Program  {  static void Main(string[] args)  {  int a = 5, b = 8;  Console.WriteLine("Before Swap;\n");  Console.WriteLine("a={0},b={1}",a,b);  a = a + b;  b = a - b;  a = a - b;  Console.WriteLine("After Swap:\n");  Console.WriteLine("a={0},b={1}", a, b);  Console.ReadLine();  }  }  } |
| Output: |

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| 20.Write a program print (\*) in pattern. |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace PrintPattern  {  internal class Program  {  static void Main(string[] args)  {    Console.WriteLine("Enter number of rows :");  int rows=Convert.ToInt32(Console.ReadLine());  for (int i = 0; i <= rows; i++)  {  for (int j = 0; j <= i; j++)  {  Console.Write("\*");  }  Console.WriteLine("\n");    }  Console.ReadKey();  }  }  } |
| Output: |