Activity 1: WHO ARE YOU?

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{

   public static class activity 1
   {
      public static void Main()
      {
         Console.Write("First name: ");
         string firstName = Console.ReadLine();

         Console.Write("Last name: ");
         string lastName = Console.ReadLine();

         if (firstName == "" || lastName == "") ;
         {
            Console.WriteLine("Empty input! Fill in all the Fields");
         }
         return;
         {
            Console.WriteLine($"First name: {firstName} Last name: {lastName}");
         }
      }
   }
}
```

Activity 2: HOW OLD ARE YOU IN MONTHS?

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{

   public static class activity 2
   {
      public static void Main()
      {
```

```
        Console.Write("Enter your age in years: ");
        int ageInYears = Convert.ToInt32(Console.ReadLine());

        if (ageInYears >= 1 && ageInYears <= 120)
        {
            int ageInMonths = ageInYears * 12;
            Console.WriteLine($"You are {ageInMonths} months old.");
        }
        else
        {
            Console.WriteLine("Please enter a valid age between 1 and 120.");
        }
    }
}
```

Activity 3: CAN YOU AFFORD IT?

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{
    public static class activity 3
    {
        public static void Main()
        {
            Console.Write("Enter price:");
            float price = Convert.ToInt32(Console.ReadLine());

            Console.Write("Enter quantity:");
            int quantity = int.Parse(Console.ReadLine());

            if (price > 0 && quantity > 0)
            {
                float total = price * quantity;
                Console.WriteLine($"Total: PHP {total}");
            }
            else
            {
                Console.WriteLine("Your price and quantity must be both positive numbers");
            }

        }
```

```
    }
}
```

Activity 4: FEELING HOT OR COLD?

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{

    public static class Activity4
    {
        public static void Main()
        {
            Console.WriteLine("Feeling Hot or Cold?");

            Console.Write("Enter Celsius:");
            float Celsius = float.Parse(Console.ReadLine());

            if (Celsius > -100 && Celsius < 100)
            {
                float fahrenheit = (Celsius * 9 / 5) + 32;
                Console.WriteLine($"Temperature in Fahrenheit: {fahrenheit}");
            }
            else
            {
                Console.WriteLine("Invalid celsius number");
            }

        }
    }
}
```

Activity 5: WHO ARE YOU REALLY?

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{
```

```
    public static class Activity5
    {
        public static void Main()
        {

            string name = "John";
            int age = 25;
            float height = 5.9f;

            Console.WriteLine($"Name {name}, Age {age}, Height {height} ");

        }
    }
}
```

Activity 6: DID YOU PASS?

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{

    public static class Activity6
    {
        public static void Main()
        {
            Console.Write("Enter your grade:");
            int grade = int.Parse(Console.ReadLine());

            if (grade >= 0 && grade <= 100)
            {
                string letter;
                if (grade >= 90) letter = "A";
                else if (grade >= 80) letter = "B";
                else if (grade >= 70) letter = "C";
                else if (grade >= 60) letter = "D";
                else letter = "F";

                Console.WriteLine($"Your grade: {letter}");
            }
            else
            {
```

```
            Console.WriteLine("Invalid number");
        }
    }
  }
}
```

Activity 7: THE SIMPLE CALCULATOR PROBLEM

```
using System;
using System.Linq;
using System.Collections.Generic;
namespace HelloWorld
{
   public static class Activity7
   {
      public static void Main()
      {
         Console.Write("Enter a number: ");
         float num1 = float.Parse(Console.ReadLine());

         Console.Write("Enter another number: ");
         float num2 = float.Parse(Console.ReadLine());

         Console.Write("Enter an operator: ");
         char op = char.Parse(Console.ReadLine());

         float result;
         if (op == '+') result = num1 + num2;
         else if (op == '-') result = num1 - num2;
         else if (op == '*') result = num1 * num2;
         else if (op == '/')
         {
            if (num2 != 0)
               result = num1 / num2;
            else
            {
               Console.WriteLine("Error");
               return;
            }
         }
         else
         {
            Console.WriteLine("Invalid number");
            return;
```

```
        }
        Console.WriteLine($"The result is: {result}");
    }
  }
}
```

Activity 8: CONVERT ME!

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{
  public static class Activity8
  {
    public static void Main()
    {
      Console.Write("Enter a number: ");
      string input = Console.ReadLine();

      if (int.TryParse(input, out int number))
      {
        int result = number + 10;
        Console.WriteLine($"Result after adding 10: {result}");
      }
      else
      {
        Console.WriteLine("Non-numeric input");
      }
    }
  }
}
```

Activity 9: EVEN OR ODD?

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{
  public static class Activity9
```

```
{
   public static void Main(string[] args)
   {
      Console.Write("Enter a Number:");
      string input = Console.ReadLine();

      if (int.TryParse(input, out int num))
      {
            if (num % 2 == 0)
            {
               Console.WriteLine("The number is even.");
            }
            else
            {
               Console.WriteLine("The number is odd.");
            }
      }
      else
      {
         Console.WriteLine("Invalid input! Please enter a number.");
      }
      }
   }
}
```

Activity 10: VALIDATE MY INFO

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{
   public static class Activity10
   {
      public static void Main()
      {
         Console.Write("Enter name: ");
         string name = Console.ReadLine();

         Console.Write("Enter age: ");
         int age = int.Parse(Console.ReadLine());

         Console.Write("Enter email: ");
         string email = Console.ReadLine();

         if (name == "")
         {
            Console.WriteLine("Name must not be empty.");
         }
         else if (age >= 1 && age >= 120)
         {
            Console.WriteLine("Invalid age.");
         }
         else if (!email.Contains("@"))
         {
            Console.WriteLine("Invalid email.");
         }
         else
         {
            Console.WriteLine("All are valid.");
         }
      }
   }
}
```

Activity 11: PIN CODE RETRY SYSTEM

```
using System;
```

```
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{
   public static class Activity11
   {
      public static void Main()
      {
         string correctPin = "1234";
         int attempts = 0;

         while (attempts < 3)
         {
            Console.Write("Enter your user pin: ");
            string userPin = Console.ReadLine();

            if (userPin == correctPin)
            {
               Console.WriteLine("Acces granted.");
               return;
            }
            else
            {
               Console.WriteLine("Incorrect pin.");
               attempts++;
            }

         }
         Console.WriteLine("Access denied.");
      }
   }
}
```

Activity 12: EVEN OR ODD CHECKER

```
using System;
using System.Linq;
using System.Collections.Generic;

public static class Activity12
{
   public static void Main()
   {
```

```
        Console.Write("Enter a number: ");
        string input = Console.ReadLine();

        if (int.TryParse(input, out int number))
        {
            if (number % 2 == 0)
                Console.WriteLine("Even number");
            else
                Console.WriteLine("Odd number");
        }
        else
        {
            Console.WriteLine("Invalid input. Please enter an integer.");
        }
    }
}
```

Activity 13: NAME CASE FORMATTER

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{
    public static class Activity13
    {
        public static void Main(string[] args)
        {
            string name = “jHON”;
            string changeCase = char.ToUpper(name[0]) + name.Substring(1).ToLower();

            Console.WriteLine(changeCase);
        }
    }
}
```

Activity 14: AGE GROUPCATEGORIZER

```
using System;
using System.Linq;
using System.Collections.Generic;
namespace Hello world
{
public static class Activity14
```

```
{
   public static void Main()
   {
      Console.Write("Enter age: ");
      int age = int.Parse(Console.ReadLine());

      if (age >= 0 && age <= 130)
      {
         if (age >= 0 && age <= 12)
         {
            Console.WriteLine("Child");
         }
         else if (age >= 13 && age <= 19)
         {
            Console.WriteLine("Teen");
         }
         else if (age >= 20 && age <= 59)
         {
            Console.WriteLine("Adult");
         }
         else if (age >= 60 && age <= 130)
         {
            Console.WriteLine("Senior");
            return;
         }
         else
         {
            Console.WriteLine("Invalid age.");
         }
      }
   }
}
}
```

Activity 15: LETTER GRADE CALCULATOR

```
using System;
using System.Linq;
namespace Helo_word;

public static class Activity15
{
   public static void Main()
   {
      Console.Write(“Enter your grade: “);
      int grade = int.Parse(Console.ReadLine());

      char letter;

      if (grade >= 0 && grade <= 100)
      {
         if (grade >= 90) letter = ‘A’;
         else if (grade >= 80) letter = ‘B’;
         else if (grade >= 70) letter = ‘C’;
         else if (grade >= 60) letter = ‘D’;
         else letter = ‘F’;

         Console.WriteLine($”Your grade is {letter}”);
      }
      else
      {
         Console.WriteLine(“Invalid grade.”);
      }
   }
}
```

Activity 16: SIMPLE CALCULATOR WITH SWITCH

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{

   public static class Activity16
   {
      public static void Main()
```

```
    {
        Console.Write("Enter a number: ");
        float num1 = float.Parse(Console.ReadLine());

        Console.Write("Enter another number: ");
        float num2 = float.Parse(Console.ReadLine());

        Console.Write("Enter an operator: ");
        string op = Console.ReadLine();

        switch (op)
        {
            case "+":
                Console.WriteLine($"Result:  {num1 + num2}");
                break;
            case "-":
                Console.WriteLine($"Result:  {num1 - num2}");
                break;
            case "*":
                Console.WriteLine($"Result:  {num1 * num2}");
                break;
            case "/":
                if (num1 > 0 && num2 > 0)
                {
                    Console.WriteLine($"Result:  {num1 / num2}");
                }
                else
                {
                    Console.WriteLine("Cannot validate division by zero.");
                }
                break;
        }
    }
  }
}
```

Activity 17: MULTIPLICATION TABLE PRINTER

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{
   public static class Activity17
   {
      public static void Main()
      {
         Console.Write("Enter a number (1-10): ");
         int number = int.Parse(Console.ReadLine());

         if (number >= 1 && number <= 10)
         {
            for (int i = 1; i <= 10; i++)
            {
               Console.WriteLine($"{number} * {i} = {number * i}");
            }
         }
         else
         {
            Console.WriteLine("Invalid input.");
         }
      }
   }
}
```

Activity 18: COUNT DOWN TIMER

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{
   public static class Activity18
   {
      public static void Main()
      {
         Console.Write(“Enter a positive number: “);
         int number = int.Parse(Console.ReadLine());
```

```
        if (number > 0)
        {
            while (number >= 0)
            {
                Console.WriteLine(number);
                number--;
            }
        }
        else
        {
            Console.WriteLine("Input must be a positive number.");
        }
    }
  }
}
```

Activity 19: SECRET WORD GUESSER

```
using System;
using System.Linq;
using System.Collections.Generic;
namespace HelloWorld
{
  public static class Activity19
  {
    public static void Main(string[] args)
    {
      string guess;
      do
      {
        Console.Write("Guess the secret word: ");
        guess = Console.ReadLine().ToLower();
        if (guess != "open")
        {
          Console.WriteLine("Try again.");
        }
      }
      while (guess != "open");
      Console.WriteLine("Correct!");
    }
  }
}
```

Activity 20: PASSWORD POLICY VALIDATOR

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{
   public static class Activity20
   {
      public static void Main(string[] args)
      {
         Console.Write("Enter a password: ");
         string password = Console.ReadLine();

         bool hasUpper = false;
         bool hasDigit = false;

         foreach (char c in password)
         {
            if (char.IsUpper(c))
               hasUpper = true;
            if (char.IsDigit(c))
               hasDigit = true;
         }

         bool isLengthValid = password.Length >= 8;

         if (isLengthValid && hasUpper && hasDigit)
         {
            Console.WriteLine("Valid password");
         }
         else
         {
            Console.WriteLine("Invalid password.");
            if (!isLengthValid)
               Console.WriteLine("- Password must be at least 8 characters long.");
            if (!hasUpper)
               Console.WriteLine("- Password must include at least one uppercase letter.");
            if (!hasDigit)
               Console.WriteLine("- Password must include at least one number.");
         }
      }
```

```
    }
}
```

Activity 21: USER MENU WITH SWITCH

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{
    public static class Activity21
    {
        public static void Main(string[] args)
        {
            Console.WriteLine("Menu:");
            Console.WriteLine("[1] Greet");
            Console.WriteLine("[2] Show Date");
            Console.WriteLine("[3] Exit");

            Console.Write("Enter your choice (1-3): ");
            int menu = int.Parse(Console.ReadLine());

            switch (menu)
            {
                case 1:
                    Console.WriteLine("Hello, User!");
                    break;

                case 2:
                    Console.WriteLine("Today is " + DateTime.Now.ToString("yyyy-MM-dd"));
                    break;

                case 3:
                    Console.WriteLine("Exiting...");
                    break;

                default:
                    Console.WriteLine("Invalid option!");
                    break;
            }
        }
    }
}
```

Activity 22: STRING CHARACTER ACCESS

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{
   public static class Activity22
   {
      public static void Main(string[] args)
      {
         Console.Write("Enter a word: ");
         string word = Console.ReadLine();

         Console.Write("Enter an index: ");
         int index = int.Parse(Console.ReadLine());

         if (index >= 0 && index < word.Length)
         {
            Console.WriteLine($"Letter at index {index}: {word[index]}");
         }
         else
         {
            Console.WriteLine("Invalid index!");
         }
      }
   }
}
```

Activity 23: UPPER CASE LETTER COUNTER

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{
   public static class Activity23
   {
      public static void Main(string[] args)
      {
         Console.Write(“Enter a sentence: “);
```

```
        string sentence = Console.ReadLine();
        int uppercaseCount = 0;

        for (int I = 0; I < sentence.Length; i++)
        {
            if (char.IsUpper(sentence[i]))
            {
                uppercaseCount++;
            }
        }
        Console.WriteLine(“Number of uppercase letters: “ + uppercaseCount);
    }
  }
}
```

Activity 24: SIMPLE AUTHENTICATION LOOP

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{
  public static class Activity24
  {
    public static void Main(string[] args)
    {
      string username = "", password = "";

      while (username != "admin" || password != "1234")
      {
        Console.Write("Username: ");
        username = Console.ReadLine();

        Console.Write("Password: ");
        password = Console.ReadLine();

        if (username == "admin" && password == "1234")
        {
          Console.WriteLine("Login successful");
        }
        else
        {
          Console.WriteLine("Try again");
```

```
            }
        }
    }
  }
}
```

Activity 25: TOTAL UNTIL STOP

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{
   public class Activity25
   {
      public static void Main(string[] args)
      {
         int total = 0;
         while (true)
         {
            Console.Write("Enter number (or 'stop'): ");
            string input = Console.ReadLine();

            if (input.ToLower() == "stop")
               break;

            if (int.TryParse(input, out int number))
               total += number;
         }
         Console.WriteLine("Total sum: " + total);
      }
   }
}
```

Activity 26: LONGEST WORD LENGTH

```
Using System;
Using System.Linq;
Using System.Collections.Generic;

Namespace HelloWorld
{
   Public static class Activity26
```

```
   {
      Public static void Main(string[] args)
      {
         Console.Write(“Enter a sentence: “);
         String text = Console.ReadLine();

         Int longest = 0;
         Int count = 0;

         For (int I = 0; I < text.Length; i++)
         {
            If (text[i] != ‘ ‘)
            {
               Count++;
            }
            Else
            {
               If (count > longest)
                  Longest = count;

               Count = 0;
            }
         }
         If (count > longest)
            Longest = count;

         Console.WriteLine(“Longest word length: “ + longest);
      }
   }
}
```

Activity 27: NUMBER PYRAMID GENERATOR

```
Using System;
Using System.Linq;
Using System.Collections.Generic;

Namespace HelloWorld
{
   Public class Activity27
   {
      Public static void Main(string[] args)
      {
         Console.Write(“Enter rows: “);
```

```
        Int rows = int.Parse(Console.ReadLine());
        Int number = 1;

        For (int I = 1; I <= rows; i++)
        {
           For (int j = 1; j <= I; j++)
           {
              Console.Write(number + “ “);
              Number++;
           }
           Console.WriteLine();
        }
     }
  }
}
```

Activity 28: MANUAL WORD REVERSAL

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{
   public static class Activity28
   {
      public static void Main(string[] args)
      {
         Console.Write("Enter a word: ");
         string word = Console.ReadLine();
         string reversed = "";

         for (int i = word.Length - 1; i >= 0; i–)
         {
            reversed += word[i];
         }
         Console.WriteLine($"Reversed word: {reversed}");
      }
   }
}
```

Activity 29: PRIME NUMBER IN RANGE

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{
   public static class Activity29
   {
      public static void Main(string[] args)
      {
         Console.Write("Enter start: ");
         int start = int.Parse(Console.ReadLine());

         Console.Write("Enter end: ");
         int end = int.Parse(Console.ReadLine());

         if (start >= end)
         {
            Console.WriteLine("Invalid range.");
            return;
         }

         Console.WriteLine("Prime numbers in the range: ");
         for (int num = start; num <= end; num++)
         {
            bool isPrime = true;
            if (num <= 1)
               continue;

            for (int i = 2; i <= num / 2; i++)
            {
               if (num % i == 0)
               {
                  isPrime = false;
                  break;
               }
            }
            if (isPrime)
               Console.Write($"{num}");
         }
      }
   }
}
```

Activity 30: NUMBERS TO WORDS (0-999)

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{
   public static class Activity30
   {
      public static void Main(string[] args)
      {
         Console.Write("Enter a number (0–999): ");
         int number = int.Parse(Console.ReadLine());

         if (number < 0 || number > 999)
         {
            Console.WriteLine("Out of range");
            return;
         }
         if (number == 0)
         {
            Console.WriteLine("Zero");
            return;
         }
         string words = "";

         int hundreds = number / 100;
         int remainder = number % 100;
         int tens = remainder / 10;
         int units = remainder % 10;

         if (hundreds > 0)
         {
            words += Digit(hundreds) + " Hundred";
            if (remainder > 0)
               words += " ";
         }
         if (remainder >= 10 && remainder <= 19)
         {
            words += Teen(remainder);
         }
         else
```

```
    {
        if (tens > 0)
        {
            words += Tens(tens);
            if (units > 0)
                words += " ";
        }

        if (units > 0)
        {
            words += Digit(units);
        }
    }

    Console.WriteLine(words);
}

static string Digit(int num)
{
    switch (num)
    {
        case 1: return "One";
        case 2: return "Two";
        case 3: return "Three";
        case 4: return "Four";
        case 5: return "Five";
        case 6: return "Six";
        case 7: return "Seven";
        case 8: return "Eight";
        case 9: return "Nine";
        default: return "";
    }
}

static string Teen(int num)
{
    switch (num)
    {
        case 10: return "Ten";
        case 11: return "Eleven";
        case 12: return "Twelve";
        case 13: return "Thirteen";
        case 14: return "Fourteen";
        case 15: return "Fifteen";
        case 16: return "Sixteen";
```

```
            case 17: return "Seventeen";
            case 18: return "Eighteen";
            case 19: return "Nineteen";
            default: return "";
        }
    }

    static string Tens(int num)
    {
        switch (num)
        {
            case 2: return "Twenty";
            case 3: return "Thirty";
            case 4: return "Forty";
            case 5: return "Fifty";
            case 6: return "Sixty";
            case 7: return "Seventy";
            case 8: return "Eighty";
            case 9: return "Ninety";
            default: return "";
        }
    }
  }
}
```

Activity 31: PALINDROME WORD CHECKER

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{
  public static class Activity31
  {
    public static void Main(string[] args)
    {
      Console.Write("Enter a word: ");
      string word = Console.ReadLine();
      string reversed = "";

      for (int i = word.Length - 1; i >= 0; i--)
        reversed += word[i];

      if (word == reversed)
```

```
            Console.WriteLine($"{word} is a Palindrome");
        else
            Console.WriteLine($"{word} is Not a palindrome");
    }
  }
}
```

Activity 32: ALPHABET LADDER PRINTER

```
using System;
using System.Linq; up
using System.Collections.Generic;

namespace HelloWorld
{
  public static class Activity32
  {
    public static void Main(string[] args)
    {
      Console.Write("Enter a capital letter (A–Z): ");
      char last = Console.ReadLine()[0];

      if (last < 'A' || last > 'Z')
      {
        Console.WriteLine("Invalid input.");
        return;
      }

      for (char row = 'A'; row <= last; row++)
      {
        for (char character = 'A'; character <= row; character++)
          Console.Write(character);
        Console.WriteLine();
      }
    }
  }
}
```

Activity 33: MANUAL UPPER CASE/LOWER CASE CONVERTER

```
Using System;
Using System.Linq;
```

```
Using System.Collections.Generic;

Namespace HelloWorld
{
   Public static class Activity32
   {
      Public static void Main(string[] args)
      {
         Console.Write(“Enter a sentence: “);
         String sentence = Console.ReadLine();

         Console.Write(“Convert to (upper/lower): “);
         String choice = Console.ReadLine().ToLower();

         String result = “”;
         Foreach (char character in sentence)
         {
            If (choice == “upper” && character >= ‘a’ && character <= ‘z’)
               Result += (char)(character – 32);
            Else if (choice == “lower” && character >= ‘A’ && character <= ‘Z’)
               Result += (char)(character + 32);
            Else
               Result += character;
         }
         Console.WriteLine($”Converted: {result}”);
      }
   }
}
```

Activity 34: DIGITAL ROOT CALCULATOR

```
Using System;
Using System.Linq;
Using System.Collections.Generic;

Namespace HelloWorld
{
   Public static class Activity34
   {
      Public static void Main(string[] args)
      {
         Console.Write(“Enter a positive number: “);
         Int number = int.Parse(Console.ReadLine());

         While (number >= 10)
         {
```

```
            Int sum = 0;
            While (number > 0)
            {
               Sum += number % 10;
               Number /= 10;
            }
            Number = sum;
         }
         Console.WriteLine($”Digital root is: {number}”);
      }
   }
}
```

Activity 35: TITLE CASE FORMATTER

```
using System;
using System.Linq;
using System.Collections.Generic;

namespace HelloWorld
{
   public static class Activity30
   {
      public static void Main(string[] args)
      {
         Console.Write(“Enter a sentence: “);
         string input = Console.ReadLine();

         string result = “”;
         bool newWord = true;

         for (int I = 0; I < input.Length; i++)
         {
            char character = input[i];

            if (character == ‘ ‘)
            {
               result += character;
               newWord = true;
            }
            else
            {
               if (newWord && character >= ‘a’ && character <= ‘z’)
```

```
            {
                character = (char)(character – 32);
            }
            else if (!newWord && character >= ‘A’ && character <= ‘Z’)
            {
                character = (char)(character + 32);
            }
            result += character;
            newWord = false;
        }
      }
      Console.WriteLine(“Formatted sentence: “ + result);
    }
  }
}
```