

```
using System;
```

```
namespace NumberToWords
```

```
{
```

```
    public class NumberToWordsConverter
```

```
    {
```

```
        private string [] numbers = { "Zero", "One", "Two", "Three", "Four", "Five", "Six", "Seven",  
"Eight", "Nine", "Ten", "Eleven", "Twelve", "Thirteen", "Fourteen", "Fifteen", "Sixteen",  
"Seventeen", "Eighteen", "Nineteen" };
```

```
        private string [] tens = { "", "Ten", "Twenty", "Thirty", "Forty", "Fifty", "Sixty", "Seventy",  
"Eighty", "Ninety" };
```

```
        public NumberToWordsConverter()
```

```
        { }
```

```
        public string ConvertToStringWithIf(int number)
```

```
        {
```

```
            char [] digits = number.ToString().ToCharArray();
```

```
            string words = null;
```

```
            if (number >= 0 && number <= 19)
```

```
            {
```

```
                words = words + numbers[number];
```

```
            }
```

```
            else if (number >= 20 && number <= 99)
```

```
            {
```

```
                int firstDigit = (int)char.GetNumericValue(digits[0]);
```

```
                int secondPart = number % 10;
```

```

words = words + tens[firstDigit];

if (secondPart > 0)
{
    words = words + " " + ConvertToStringWithIf(secondPart);
}
}

else if (number >= 100 && number <= 999)
{
    int firstDigit = (int)char.GetNumericValue(digits[0]);
    int secondPart = number % 100;

    words = words + numbers[firstDigit] + " hundred";

    if (secondPart > 0)
    {
        words = words + " and " + ConvertToStringWithIf(secondPart);
    }
}

else if (number >= 1000 && number <= 3000)
{
    int firstPart = (int)char.GetNumericValue(digits[0]);
    if (number >= 10000)
    {
        string twoDigits = digits[0].ToString() + digits[1].ToString();
        firstPart = Convert.ToInt16(twoDigits);
    }
}

```

```

    }

    int secondPart = number % 1000;

    words = words + numbers[firstPart] + " thousand";

    if (secondPart > 0 && secondPart <= 99)
    {
        words = words + " and " + ConvertToStringWithIf(secondPart);
    }

    else if (secondPart >= 100)
    {
        words = words + " " + ConvertToStringWithIf(secondPart);
    }
}

return words;
}

```

```

public string ConvertToStringWithSwich(int number)
{
    char [] digits = number.ToString().ToCharArray();

    string words = null;

    int digitCount = (int)Math.Log10(number) + 1;

    switch (digitCount)
    {
        case 1:

```

```
words = words + numbers[number];
```

```
break;
```

case 2:

```
int firstDigit = (int)char.GetNumericValue(digits[0]);
```

```
int secondPart = number % 10;
```

```
words = words + tens[firstDigit];
```

```
if (secondPart > 0)
```

```
{
```

```
    words = words + " " + ConvertToStringWithSwich(secondPart);
```

```
}
```

```
break;
```

case 3:

```
firstDigit = (int)char.GetNumericValue(digits[0]);
```

```
secondPart = number % 100;
```

```
words = words + numbers[firstDigit] + " hundred";
```

```
if (secondPart > 0)
```

```
{
```

```
    words = words + " and " + ConvertToStringWithSwich(secondPart);
```

```
}
```

```
break;
```

case 4:

```
int firstPart = (int)char.GetNumericValue(digits[0]);
```

```
    if (number >= 10000)
    {
        string twoDigits = digits[0].ToString() + digits[1].ToString();
        firstPart = Convert.ToInt16(twoDigits);
    }

    secondPart = number % 1000;

    words = words + numbers[firstPart] + " thousand";

    if (secondPart > 0 && secondPart <= 99)
    {
        words = words + " and " + ConvertToStringWithSwich(secondPart);
    }
    else if (secondPart >= 100)
    {
        words = words + " " + ConvertToStringWithSwich(secondPart);
    }
    break;
}

return words;
}
}
```