```
private void ButCalculate_Click(object sender, EventArgs e)
{
      int n, factroial=1;
      n = Int32.Parse(TxtN.Text);
      for (int i = 1; i <= n; i++)
         factroial *= i;
      TxtFactorial.Text = factroial.ToString();
}
```

2.6 Nested Control Structures

- Nesting
  - The insertion of one control structure inside another
    - Multiple loops
    - Loops with **if** statements
    - **if** statements within a loop
    - **if** statements within **if** statements

  Case study:

  Design an application to input the sale value , Calculate the discount as follows:

  When a customer pay with visa card

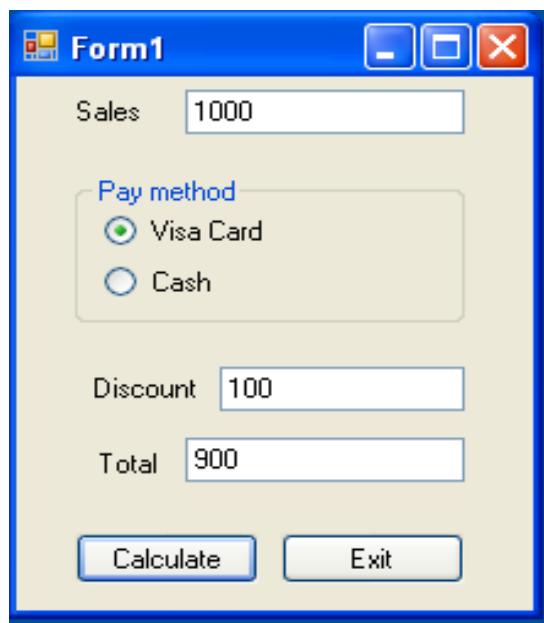 5% if his sale less than 100 JD

  10% if his sale greater or equal to 100 JD

  When a customer pay cash

  4% if his sale less than 100 JD

  8% if his sale greater or equal to 100 JD

```
private void ButCalculate_Click(object sender, EventArgs e)
{
   float Sales, Discount, Total;
   Sales = float.Parse(TxtSales.Text);
   if(RadVisaCard.Checked)
   {
     if (Sales >= 100)
        Discount=0.10f *Sales;
     else
        Discount=0.05f *Sales;
   }
   else
   {
     if (Sales >= 100)
        Discount=0.08f *Sales;
     else
        Discount=0.04f *Sales;
   }
   Total=Sales-Discount;
   TxtDiscount.Text=Discount.ToString();
   TxtTotal.Text=Total.ToString();
}
```