1 While Loop With Complex Conditions

```csharp
int c;
string message;
int count;
bool res;

Console.WriteLine("Please, enter an integer.");
message = Console.ReadLine();
res = int.TryParse(message, out c);
count = 0; // The user has 3 tries: count will be 0, 1, 2, and then we default.
while (!res && count < 3)
{
    count++;
    if (count == 3)
    {
        c = 1;
        Console.WriteLine("I'm using the default value 1.");
    }
    else
    {
        Console.WriteLine("The value entered was not an integer.");
        Console.WriteLine("Please, enter an integer.");
        message = Console.ReadLine();
        res = int.TryParse(message, out c);
    }
}
Console.WriteLine("The value is: " + c);
```

2 Do ... while Loops

```csharp
do
{
    <statement block>
} while (<condition>);
```

string ent = "";
int b;
int sum = 0;
bool flag;
do
{
```
Console.WriteLine("Enter an integer, or anything to quit.");
ent = Console.ReadLine();
flag = int.TryParse(ent, out b);
sum += b;
} while (flag);

3 Do ... while with complex condition

int age;
string answer;
do
{
    Console.Write("Please, enter your age.\n");
    answer = Console.ReadLine();
} while (! int.TryParse(answer, out age) || age < 0);

4 Putting it all together!

using System;
class Loan
{
    private string account;
    private char type;
    private int cscore;
    private decimal amount;
    private decimal rate;

    public Loan()
    {
        account = "Unknown";
        type = 'o';
        cscore = -1;
        amount = -1;
        rate = -1;
    }

    public Loan(string nameP, char typeP, int cscoreP, decimal needP, decimal downP)
    {
        account = nameP;
        type = typeP;
        cscore = cscoreP;
        if (cscore < 300)
        {
            Console.WriteLine("Sorry, we can't accept your application");
        }
amount = -1;
rate = -1;
}
else
{
    amount = needP - downP;

    switch (type)
    {
        case ('a'):
            rate = .05M;
            break;

        case ('h'):
            if (cscore > 600 && amount < 1000000M)
                rate = .03M;
            else
                rate = .04M;
            break;
        case ('o'):
            if (cscore > 650 || amount < 100000M)
                rate = .07M;
            else
                rate = .09M;
            break;
    }

    public override string ToString()
    {
        string typeName = "";
        switch (type)
        {
            case ('a'):
                typeName = "an auto";
                break;

            case ('h'):
                typeName = "a house";
                break;
            case ('o'):
                typeName = "another reason";
                break;
        }

        return "Dear " + account + ", you borrowed {amount:C} at {rate:P} for " + typeName + " at a rate of " + rate.ToString("P") + ";";
    }
using System;

class Program
{
    static void Main()
    {
        Console.WriteLine("What is your name?");
        string name = Console.ReadLine();

        Console.WriteLine("Do you want a loan for an Auto (A, a), a House (H, h), or for some Other (O, o) reason?");
        char type = Console.ReadKey().KeyChar; ;
        Console.WriteLine();

        string typeOfLoan;

        if (type == 'A' || type == 'a')
        {
            type = 'a';
            typeOfLoan = "an auto";
        }
        else if (type == 'H' || type == 'h')
        {
            type = 'h';
            typeOfLoan = "a house";
        }
        else
        {
            type = 'o';
            typeOfLoan = "some other reason";
        }

        Console.WriteLine($"You need money for {typeOfLoan}, great.\nWhat is your current credit score?");
        int cscore = int.Parse(Console.ReadLine());

        Console.WriteLine("How much do you need, total?");
        decimal need = decimal.Parse(Console.ReadLine());

        Console.WriteLine("What is your down paiment?");
        decimal down = decimal.Parse(Console.ReadLine());

        Loan myLoan = new Loan(name, type, cscore, need, down);
        Console.WriteLine(myLoan);
    }
}
44
45 }