

```
namespace LatticeModel
{
    internal interface IGetPayoff
    {
        double GetPayoff(double strike, double spotAtMaturity);
    }

    internal class VanillaOption:IGetPayoff
    {
        internal VanillaOption(bool call)
        {
            this.call = call;
        }

        public double GetPayoff(double K, double S_T)
        {
            if (call)
            {
                return System.Math.Max(S_T - K, 0);
            }
            else
            {
                return System.Math.Max(K - S_T, 0);
            }
        }

        private bool call;
    }
}
```