```
public enum CustomerType {
  NotRegistered = 1,
  Simple = 2,
  Silver = 3,
  Gold = 4
}
public static class Constants {
  public const int MAX_YEAR = 5;
  public static readonly Dictionary<CustomerType, double>
    priceRate = new Dictionary<CustomerType, double> {
      { CustomerType.Simple, 0.9},
      { CustomerType.Silver, 0.7},
      { CustomerType.Gold, 0.5}
    };
}
public class DiscountManager {
  public static double CalculateDiscountedPrice(double price,
                    CustomerType type, int years=0) {
    if (type != CustomerType.NotRegistered) {
      double loyaltyDiscountPercent = (years > Constants.MAX_YEAR)?
                    Constants.MAX_YEAR / 100.0 : years / 100.0;
      return Constants.priceRate[type] * price *
                                (1 - loyaltyDiscountPercent);
    }
    return price;
}}
```