

# Forum:[Hack Forums](#)

Thread: [Object-Oriented Design Project](#)

**Russian bear** - February 20, 2022, 1:02 pm

can someone help me with this project which service i should make ?

Design and implement a realistic software application of your choice. Represent your software application as a design class diagram and implement it using C# code. You can use either Visual Studio or StarUML to create your class diagram. You are required to use Visual Studio to create your C# implementation. This project shall be done individually. You are not allowed to share features or ideas with other students.

Write a description (around 500 words) of the software application that you selected.

Your design and implementation shall contain at least 15 types (including both classes and interfaces). These

types shall incorporate realistic members (properties, methods, etc.) and be related in a meaningful way.

You are required to demonstrate your knowledge of the course material by including in your application at

least the following key concepts (certainly other concepts can be used as well):

? Abstraction (abstract classes and/or interfaces)

? Concrete classes

? Namespaces

? Methods

? Properties

? Overriding methods and/or properties

? Overloading constructors

? Enumeration (enum)

? Collections (e.g., Lists)

? Loops (e.g., foreach)

You are required to write a short description (around 30 words) for each of the above-mentioned concepts

to indicate how and where you have used it in your design and/or source code.

You are required to implement the five SOLID design principles and three out of the GOF design patterns

(of your choice) that were covered in this course. Describe where your project realizes the design principles

and patterns and for what purpose. The principles and patterns shall be applied to features that are part of

your project, which shall remain coherent. Therefore, you cannot combine examples of design principles

and patterns that are unrelated to your project.

You are not required to implement a complete user interface. Only implement a simple interface, e.g., one

form with some buttons, which permits the execution of your source code. You can execute your source

code with some sample data as we have done in the exercises.

Use the attached report template to describe the selected software application, include your class diagram as an image and your source code as text, and describe how you applied the key concepts, design principles, and patterns.

**MavenGradle** - February 20, 2022, 1:43 pm

How about making a pizza point of sale service?

You have the option to create multiple pizza's to sell, the ability to model your restaurant chain, etc. As an added bonus, look into the builder pattern as well to make your own pizza!

Anyway, why are you limited to only using Visual Studio for writing code? That sounds so ridiculous in this day and age.

**GruntStyl** - February 21, 2022, 7:01 pm

(Feb 20, 2022 02:43 PM)MavenGradle Wrote: [\[CITE\]](#) How about making a pizza point of sale service?

You have the option to create multiple pizza's to sell, the ability to model your restaurant chain, etc. As an added bonus, look into the builder pattern as well to make your own pizza!

Anyway, why are you limited to only using Visual Studio for writing code? That sounds so ridiculous in this day and age.

Just curious what other IDE do you recommend him use (if it was an option)? For what they are requesting I see VS being a fair request, no?

**MavenGradle** - February 21, 2022, 7:06 pm

(Feb 21, 2022 08:01 PM)TazzyOpz Wrote: [\[CITE\]](#) Just curious what other IDE do you recommend him use (if it was an option)? For what they are requesting I see VS being a fair request, no?

Rider and MonoDevelop but especially Rider because it is much more efficient in terms of resource usage.

A fair request would have been to be IDE-agnostic and write good and clean code instead of focusing on the imperative usage of a singular IDE. The IDE does not matter when it comes to assignments like this.