

You have undoubtedly used quite a few popular and successful internet applications (eg. Facebook, Amazon, etc). Suppose you have a modest server with 2GB of memory connected to the internet and running a web server and you want to create a “copycat” application. Pick one popular and successful internet application and try to reverse engineer it without using any database software.

You should work in teams of 3-4 persons and one of you should present your analysis and architecture at the end of the exercise. Include in your presentation a list of the challenges and difficulties in programming such an application.

Here are some questions to help you think through the reverse engineering process.

- Who are the users of the application ? How many users ?
- What is the goal of the application ?
- What does a user do with the application ? What kind of tasks ?
- What does the application do for the user ?
- What data does the application need to keep track of ? How much data ?
- What happens when multiple users accesses the data concurrently ?
- How would you store those data in your program ? What data structures ?
- How would you organize the program for the application ? What modules ? What objects ?
- What happens if there is power outage and your server reboots ?

No code is required and you may assume that you may use any programming language.