

Assignment 02

Problem 5.1

In component-based architecture, the system is divided into loosely coupled components each providing a service to the other. In service-based architecture, each component is a service itself. The two are similar but the components are more separated in a service-based architecture.

Problem 5.2

A monolithic architecture is perfect for this as the application is self-contained and small. A table-centric architecture would also work as we can store hard coded tables for the computer to use to refer to best known moves to make against the human player.

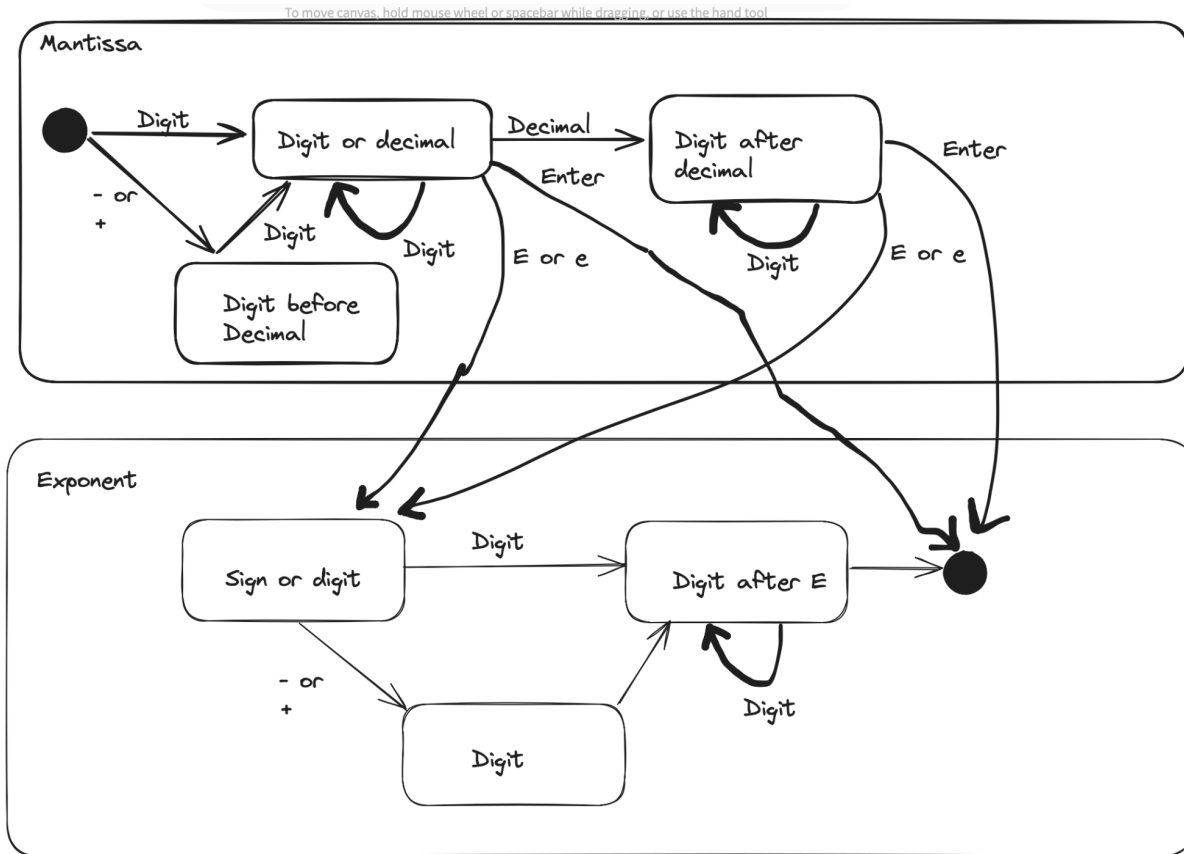
Problem 5.4

We need some way for the players to communicate over the internet so some web services are needed. The application itself is relatively small and self contained so we can make it monolithic. Chess games often use tables for best moves so some sort of data-centric architecture would be needed. This would make our application a monolithic data-centric service oriented application.

Problem 5.6

We can use operating system tools to let the user manage files. These can let the user delete old files and backup files if needed. The operating system tools can also create temporary files while the user edits a file and in case of an expected computer shutdown, we can ask the user to restore the temporary files.

Problem 5.8



Problem 6.1

| Property | Shared By |
|-----------|-----------|
| ForeColor | All |
| BackColor | All |
| UpperLeft | All |
| Width | All |
| Height | All |
| Font | Text |
| String | Text |

| | |
|---------------|--------------------------------|
| NumPoints | Star |
| FillColor | Rectangle, Ellipse, Star |
| LineThickness | Rectangle, Ellipse, Star, Line |
| DashStyle | Rectangle, Ellipse, Star, Line |

ForeColor, BackColor, upperLeft, Width, and Height should be implemented in the Drawable superclass. Line Thickness, and Dashstyle can be implemented in LineDrawable. FillColor can be implemented in the Fillable class. Text, Rectangle, Ellipse, Star, Line can then inherit from their appropriate superclasses. Font and String should only be in Text. NumPoints should only be in star.

Problem 6.2

