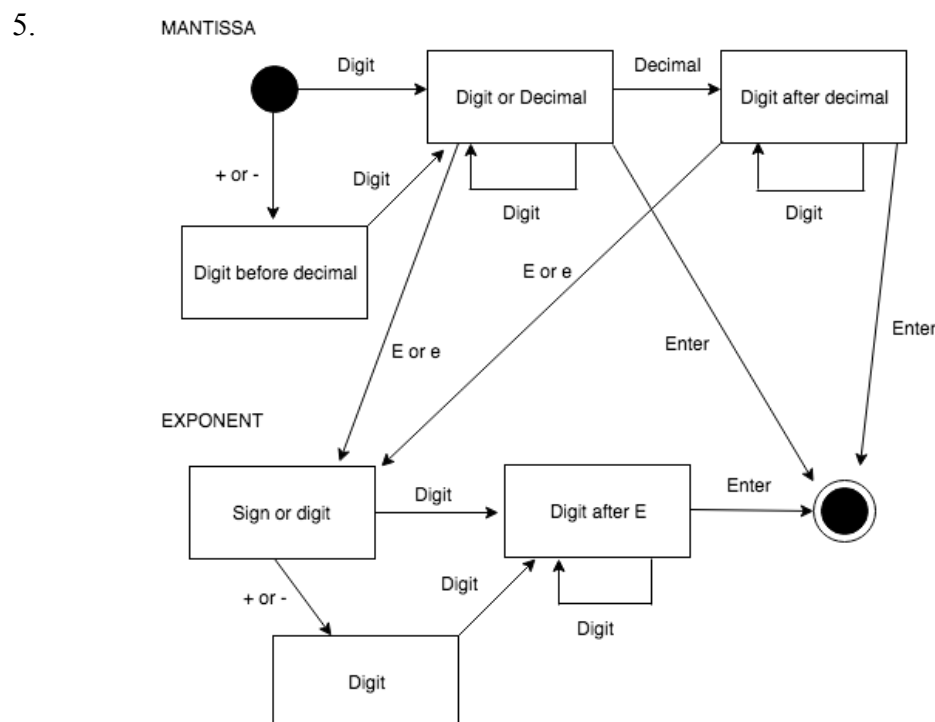


## Assignment #2

1. A component-based architecture regards the pieces of a system as a collection of loosely coupled components that provide services for each other. A service-oriented architecture is similar to a component-based architecture except the pieces are implemented as services. These services are self-contained programs that run on their own and provide some kind of service for clients.
2. Tic-tac-toe programs can build a table of all the possible moves as well as the best moves to perform. In addition, this sort of application is relatively small and self-contained. For these reasons, this application would be a monolithic rule-based data-centric application.
3. Chess programs usually have a table of typical moves a user would perform, making the chess pieces rule-based. In order to allow two users to play against each other over Internet connection, you can use web services to get the two programs to connect with each other. For these reasons, this application would be a monolithic rule-based data-centric service-oriented application.
4. Since ClassyDraw can store each drawing in a different file, it doesn't need a database. For maintenance, the current drawing the user is working on should be stored as a temporary file that can be restored if the program fails or quits unexpectedly.

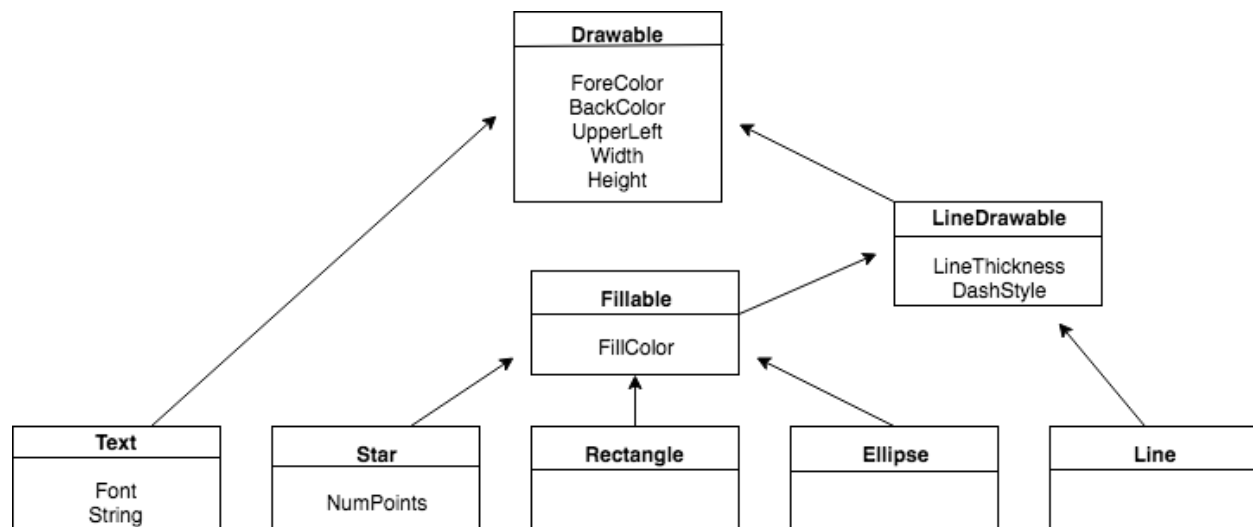


6. These classes all share properties needed for drawing, such as foreground and background colors. They also share the property of storing an upper-left corner, width, and height to define their drawing position. Some classes need extra data to draw their shape and that data isn't shared between classes. In addition, some properties can be shared by some classes and not by others. For example, Star, Rectangle, and Ellipse can be filled, so they need a fill color property.

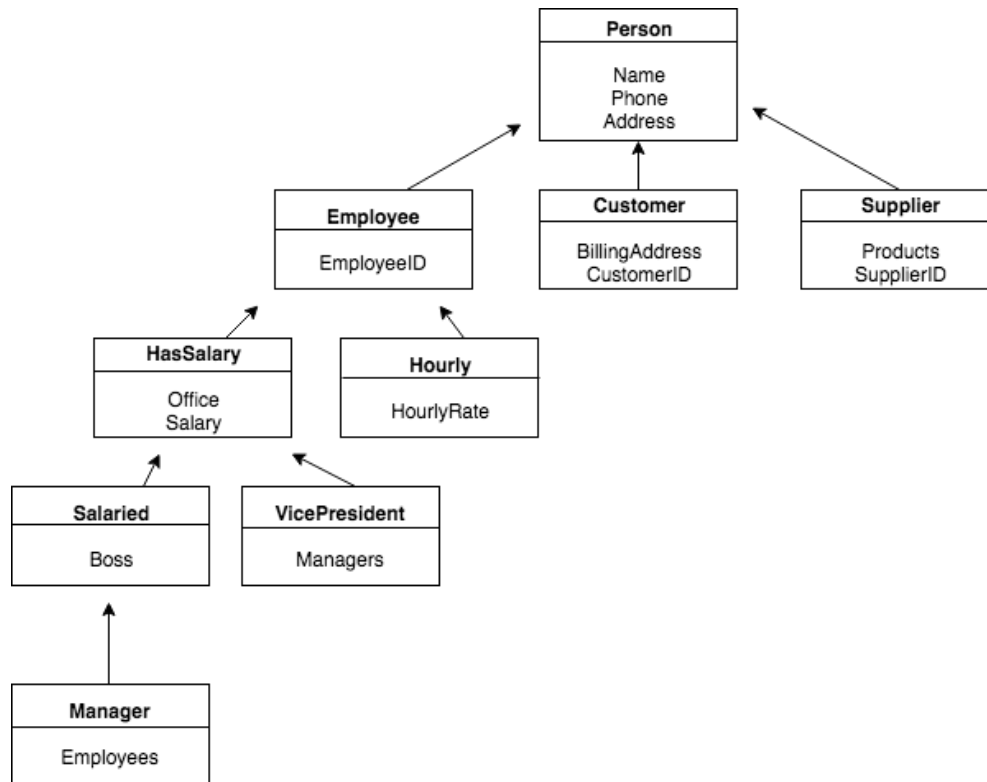
Below shows all the properties and which classes share them:

1. Font--used by Text
2. String--used by Text
3. NumPoints--used by Star
4. LineThickness--used by Rectangle, Star, Ellipse, Line
5. FillColor--used by Star, Rectangle, Ellipse
6. DashStyle--used by Rectangle, Star, Ellipse, Line
7. ForeColor--used by Text, Star, Rectangle, Ellipse, Line
8. BackColor--used by Text, Star, Rectangle, Ellipse, Line
9. UpperLeft--used by Text, Star, Rectangle, Ellipse, Line
10. Width--used by Text, Star, Rectangle, Ellipse, Line
11. Height--used by Text, Star, Rectangle, Ellipse, Line

7.



8.



9.

