

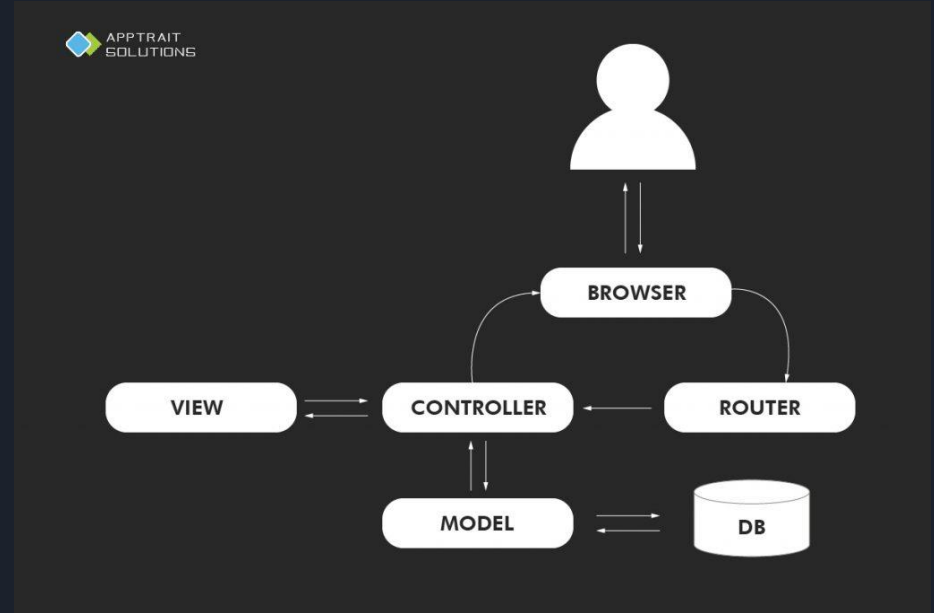
A decorative graphic on the left side of the slide consisting of two overlapping parallelograms. The front parallelogram is blue and the back one is a light green color. Both are oriented diagonally.

MVC Structure and Application

Presented by Adam Robinson

MVC: Model, View, Controller

- **MVC** is a way to organize our code, in a sense it is our separation of concerns for the backend.
- **The Model** is the only thing that can talk to our database. It does not communicate directly the user.
- **The View** is what is visible to the user and allows user interaction.
- **The Controller** is what handles the flow of information, and can communicate with both the model and the views.



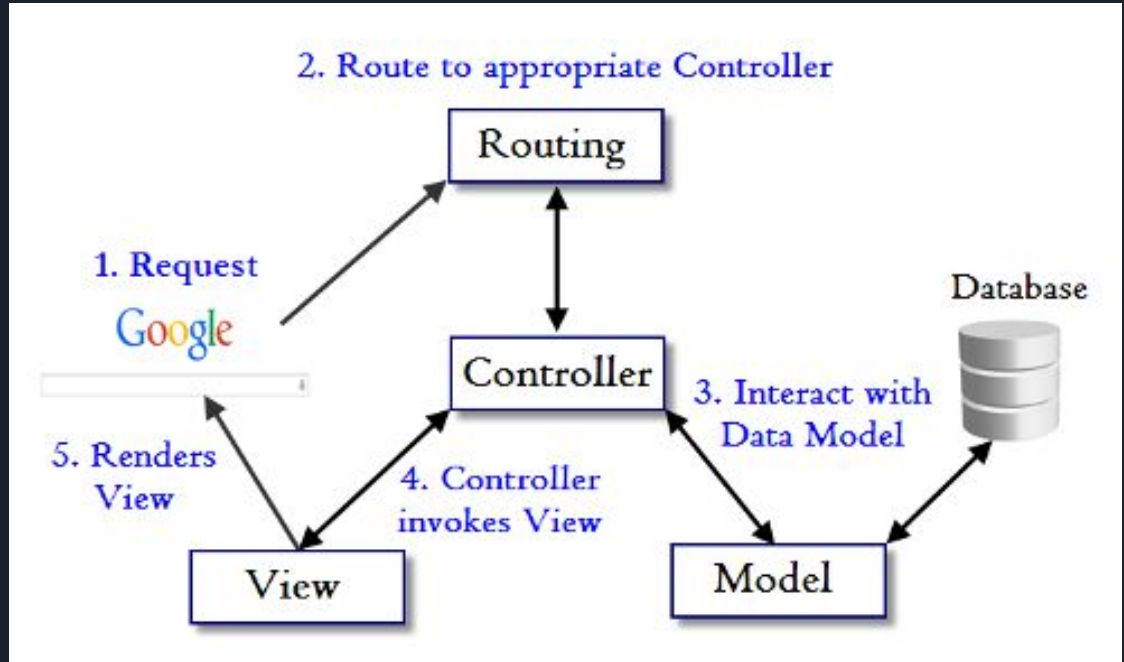


What makes up the model, views and controller?

- **Models** are implemented into applications with data storage
 - MongoDB
 - MySQL
 - Oracle
 - etc...
- **Views** are created with templating languages
 - EJS
 - Handlebars
 - Pug
 - etc...
- **Controllers** is our application logic. It is what is commanding our application to do.

How does MVC work?

1. A **user** makes a request
2. The **router** (these are good at looking at the URL) hears the request and wants to pass it off to the right controller.
3. The **controller** (the middle person) will know what to do with the request. It will know to pass it off to a **view** (EJS, Handlebars, Pug, etc.), or a **model** (the only thing that can talk to our database), and bring back what it needs to the **user**.





Benefits of MVC

- **MVC** Allows us to organize our code in a way that makes sense
- **MVC** Brings the ability to work with other developers
 - Other team members can be assigned to work on different parts of the application
- **MVC** Allows us to make changes to our code and not lose sleep wondering if we broke the entire application
 - Think separation of concerns...if I am only editing my routes, the the controller methods aren't going to break!
- **MVC** Allows us to know where to go if we do want to make changes
 - If we want to change how something looks in our views we know we just need to go to our views folder!



Conclusion

This is a very simplified version of MVC. This slide presentation is meant to be a precursor to the video that shows a very simple application and how MVC is used. In the video we will follow requests, to our routes, and to controller, and to our models and views.

I hope this small slide presentation gave you a brief overview of what is, and if you watched the video I hope you have a much better understanding of how it comes together.

Thank you for your time.