SYSTEM DESIGN

Team Stellar

Table of Contents

Class Name:	Game logic
Parent Class:	
Subclasses:	Questions and answers
Responsibilities:	- Track the questions in the mongoDB database - Process the provided answers in our mongoDB database
Collaborators:	Match, Board

Class Name:	Custom game
Parent Class:	
Subclasses:	Questions and answers
Responsibilities:	- Save the users questions and answers to the mongoDB database - Allow the user to access these custom questions and answers through the mongoDB database
Collaborators:	Game logic, Match

Class Name:	Match
Parent Class:	
Subclasses:	Player, Host
Responsibilities:	- Track the state of the match

	- Process the provided answers - Maintain chat box
Collaborators:	Board

Class Name:	Board
Parent Class:	
Subclasses:	

Responsibilities:	- Has metadata about the game board:
	  - Number of categories
	  - Number of questions and answers
	  - Title of game board
	  - Titles of categories
	- Retrieves the questions and answers from controller

Collaborators:	

Class Name:	User
Parent Class:	Registered Player, Host
Subclasses:	

Responsibilities:	- Allow users to create an account
	- Stores information provided by the user such as their:
	  - Name
	  - Profile Picture

Collaborators:	Match

Class Name:	Registered Player
Parent Class:	User
Subclasses:	N/A
Responsibilities:	- Join a match instance - Track/Update User stats - Save custom board data to account
Collaborators:	User

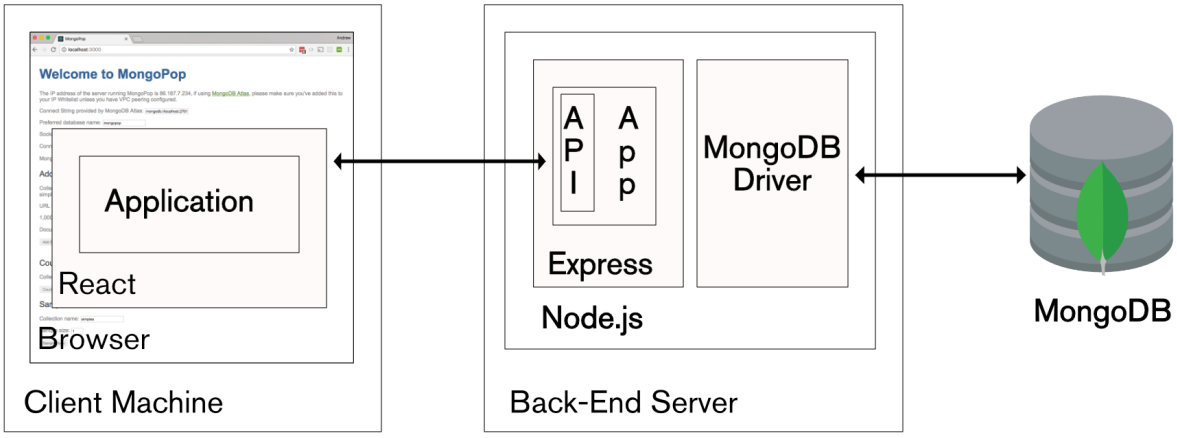
Class Name:	Guest Player
Parent Class:	Registered Player
Subclasses:	N/A
Responsibilities:	- Join a match instance
Collaborators:	User

Class Name:	Host
Parent Class:	User
Subclasses:	
Responsibilities:	- Create a match instance - Join a match instance - Choose a Board
Collaborators:	User

Class Name:	Lobby

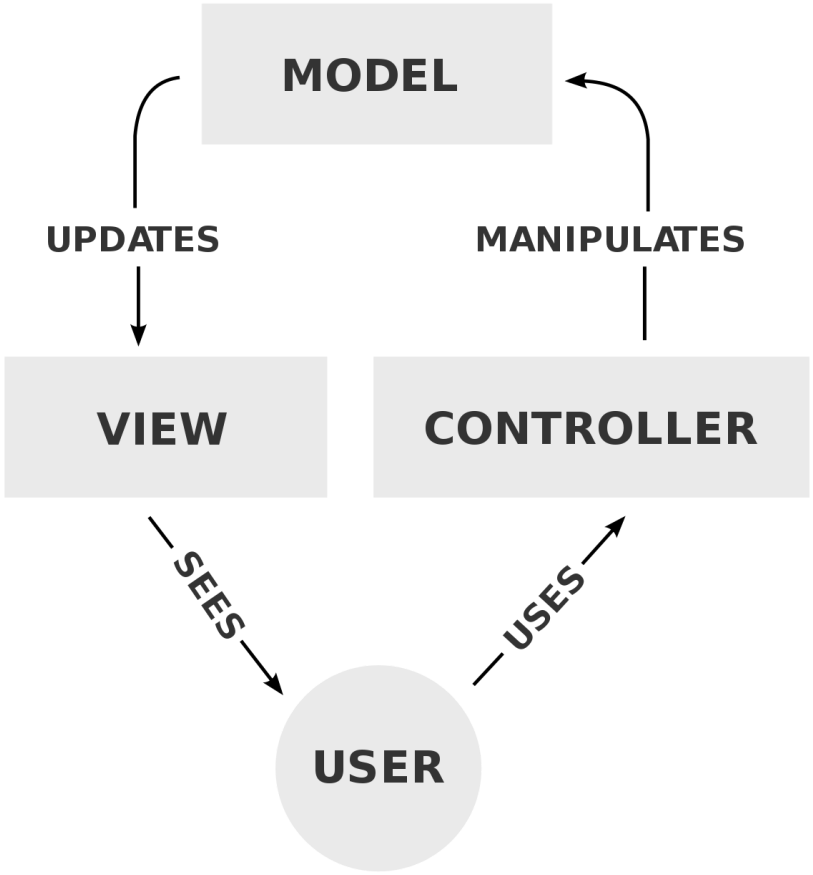
Parent Class:	Match
Subclasses:	None
Responsibilities:	- Used to select settings and board before game begins - Allows users to join the game
Collaborators:	

System Architecture



MERN stack:

We are using react for the frontend development to interact with the users, and process the information to our custom mongoDB database and this is done through the MVC architecture mentioned below.



Client Server network

In a client server network, there are clients and servers. A client can be a device or a program. It helps the end users to access the web. Some examples of clients are desktop, laptops, smartphones, web browsers, etc. A server is a device or a program that responds to the clients with the services

https://pediaa.com/difference-between-peer-to-peer-and-client-server-network/#:~:text=The%20main%20difference%20between%20peer,server%20node%20responds%20with%20services.&text=Instead%2C%20all%20the%20nodes%20can%20act%20as%20clients%20or%20servers.