

DAT602 game design

The game application (Foodie) follows the survival game with users who can compete for food and level up to increase the chance to survive and win other players.

User

Register

Users will need to create an account to save their information for high scores and display names. The casual player will also be allowed to join without having a password but they will receive notification everytime they log in.

Login

Users can access their saved data with the correct username and password is provided or if the account dont have

Edit

Users can choose to edit their current name or other information such as password, email(as long as it is not taken)

User		
userID	integer(100)	U
email	varchar(255)	
username	varchar(255)	
password	varchar(255)	N
login_check	varbinary(2000)	
login_attempt	integer(10)	
admin_check	varbinary(2000)	
highest_score	integer(1000)	N

Admin

Access

Admin also log in as normal users, when the system checks if the user has `isAdmin: true` would be presented with a dashboard of the list of games, players as well other function to edit the system such as delete game, delete or edit users.

Game

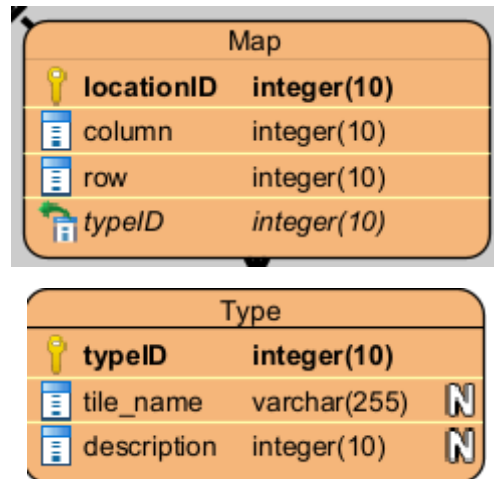
Game logic

The game will be designed in a grid of 10x10 which is filled with obstacles and food to earn points and power up to improve the game experience. There will be 5 sets of maps with obstacles while the food and powerup will randomly spawn throughout the map. The points will calculate based on time taken to complete the level and food point user collected. The level can only be finished if

the timer for the level like 2 minutes over or there are no more food on the board

If user log out, the timer will stop while keeping the current stage status for the player, within 10s count down, if user didnt get back, they will lose the game and recieve the current points, the same goes with the winner.

Player can move only 1 block using arrow keys and receive food on the block but not passing though the obstables. The current power up would allow this increase the number of block they can move at one time, other power up is not available at this stage. Player can move on top of food, powerup, another user but not obstacles(may allow if future power up)







The typeId will determine the type of block while locationID will hold the location of the tile on the map through value of column and row.

an example of a board might look like.

food			obstacle		food		food	obstacle	
	obstacle			obstacle					
		food				food			
obstacle					food		food		
			food	power up			obstacle		
	obstacle							food	
				food		obstacle			
			obstacle						
	obstacle	obstacle	food		obstacle		food		
User			obstacle						








Session

Creating a session for a game that takes in the ID of both players as well as the deadline of the game will contribute to scoring calculation as well as automatically delete the game if no one finished it

Session		
	SessionID	integer(10)
	characterID_1	integer(100)
	characterID_2	integer(100)
	time	integer(10)






Character details

Players will have their character details updated after each move such as `locationID` if you move to a normal tile, `power_up` if they move to tile with power up property and so on. The character is link to user with `userID`, the data will be reset after the game finished or deleted if user is deleted

Character		
	characterID	integer(100)
	current_score	integer(10) 
	power_up	binary(1000) 
	locationID	integer(10)
	userID	integer(100)

Chat

The chat will display the latest 40 messages which display the userName, time and message content. The Chat will function as a global chat room which player can communicate with everyone.

Chat_log		
	messageID	integer(100) 
	content	varchar(712)
	time_stamp	timestamp
	userID	integer(100)

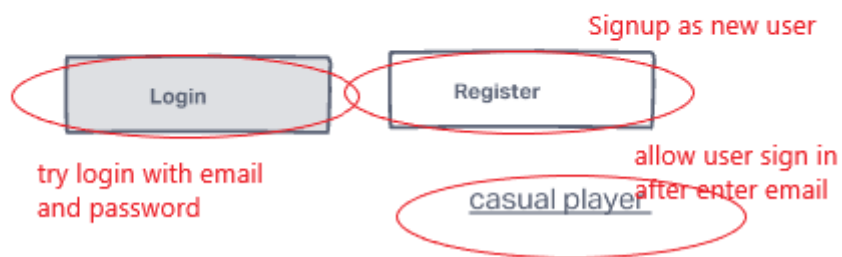
Wireframe

Login

Foodie

Email

Password



Register

Foodie

Email

Placeholder

User Name

Select your state

Password

Placeholder

Confirm Password

Select your state

Register

User will move to dashboard after success sign up

Main Menu

add description

navigation on picture

Foodie

List of current players can join a game

Current Player

You
John
Stil John
Maybe not John

current game still need player

Current game

Game 1
Game 2
Game 3

use for user to update their information

Welcome John

Update

John (12:30) : Hello
John1 (13:30) : Hello you too

Message

Text area

Exit

exit game

place to enter message and send with Enter

User details

Foodie

Welcome John

Log out

Name :

John

Email :

email@gmail.com

Password :

tap to start edit
the information

Is Admin?



only visible to
admin

Save

direct user back to
dashboard

The toggle to allow user to become Admin only available if the current user is Admin. When admin want to change users details, the same interface will present

Admin.

Foodie

Allow to create
new user

Create Player

Current Player

John		
Stil John		
Maybe not John		

allow
admin to
delete or
edit user

Current game

Game 1	
Game 2	
Game 3	

Allow admin to
delete current game

Welcome John

Log out

John (12:30) : Hello
John1 (13:30) : Hello
you too

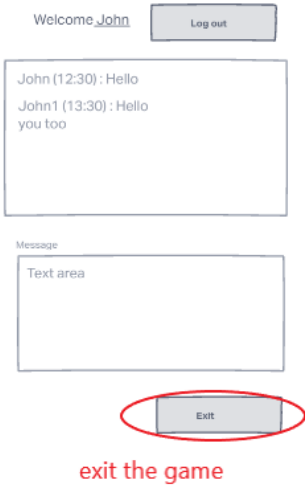
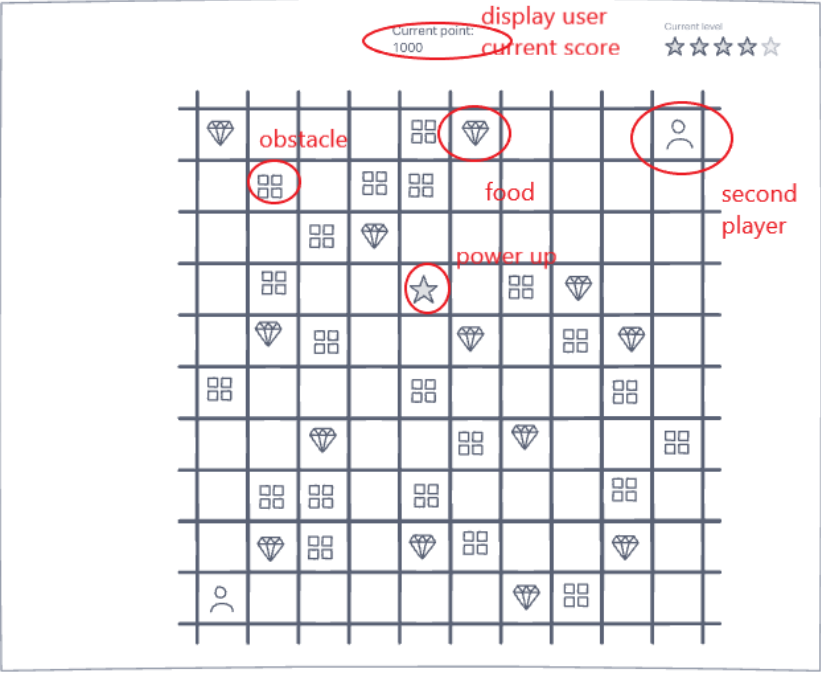
Message

Text area

Exit

Game

Foodie



Logical entity relationship diagram

Based on the game design, with user



The CRUD table is included at the root level of the Github repo.