IDEA

Tower to Heaven is a simple browser clicker game where you click to build a tower, purchase upgrades to build higher and try to reach heaven (which you can't)

Specifications/Requirements

- Project is a web-application (game in a website)
- Internet (online application)
- Browser (any)
- A game with no end
- navigation way (mouse, keyboard, pen, touch)
- Ability to save through a database
  - Also load the game when come back.
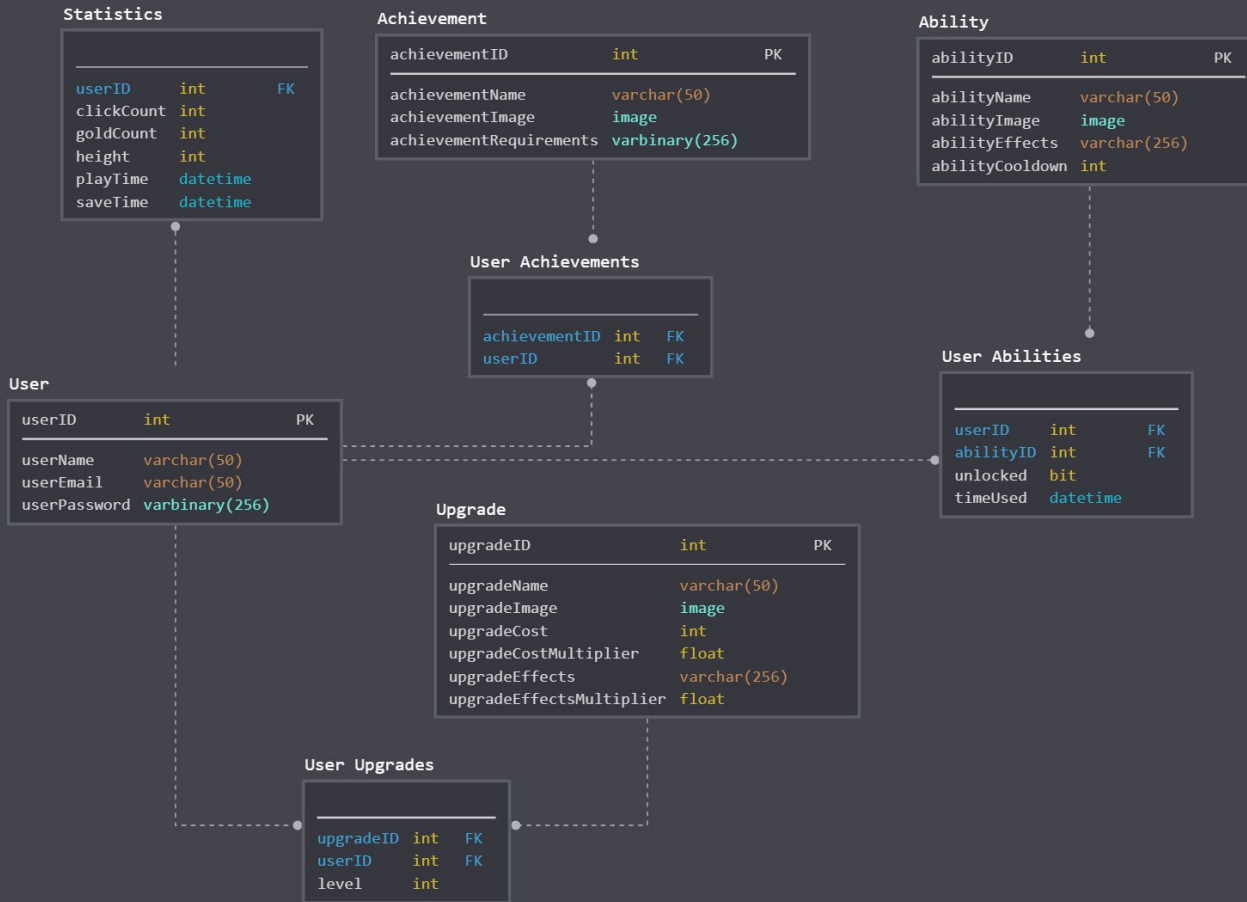
FUNCTIONAL & NON-FUNCTIONAL REQUIREMENTS

FUNCTIONAL:

- Clicking to Progress
- Purchasing Upgrades
- Use timed Abilities
- Register to Save
- Login to retrieve Save
- Reset Password
- Edit/Delete Account
- Leaderboard
- Achievements

NON-FUNCTIONAL:

- Easy to use
- Work on all Browsers
- Fast page load (3 seconds)
- Auto-Save feature
- Resolution Scalability
- Track user statistics
- Password encryption
- Displaying meaningful error messages when needed

Database Diagram

Statistics

userID	int	FK
clickCount	int	
goldCount	int	
height	int	
playTime	datetime	
saveTime	datetime	

Achievement

achievementID	int	PK
achievementName	varchar(50)	
achievementImage	image	
achievementRequirements	varbinary(256)	

Ability

abilityID	int	PK
abilityName	varchar(50)	
abilityImage	image	
abilityEffects	varchar(256)	
abilityCooldown	int	

User Achievements

achievementID	int	FK
userID	int	FK

User

userID	int	PK
userName	varchar(50)	
userEmail	varchar(50)	
userPassword	varbinary(256)	

User Abilities

userID	int	FK
abilityID	int	FK
unlocked	bit	
timeUsed	datetime	

Upgrade

upgradeID	int	PK
upgradeName	varchar(50)	
upgradeImage	image	
upgradeCost	int	
upgradeCostMultiplier	float	
upgradeEffects	varchar(256)	
upgradeEffectsMultiplier	float	

User Upgrades

upgradeID	int	FK
userID	int	FK
level	int	

Show case

Login/Reg

Tower Height: 1m
Gold: $$$

2m

1m

0m

Upgrade
Cost: $$$ | Upgrades this x

Upgrade
Cost: $$$ | Upgrades this x

Upgrade
Cost: $$$ | Upgrades this x

Upgrade
Cost: $$$ | Upgrades this x

Upgrade
Cost: $$$ | Upgrades this x

Upgrade
Cost: $$$ | Upgrades this x

Upgrade
Cost: $$$ | Upgrades this x

Statestice
click 703
upgrades 17
Gold spent 103k
Jewel spent 0

Trophu

Registration Page

Sign in | Sign up

User Name

Password

Enter

Sign in | Sing Up

User Name

Email

Password

Sign Up

Important Dates

Semester Start

Learning Databases and designing the game

Presentation 2

Have the basics of the game done and ability to communicate with the database.
Continue implementation

OCT 15th

51 Days

FEB

AUG

DEC 5th

Presentation 1 (NOW)

Have our game and database designing complete and begin implementation.

Future

Complete Implementation.
Test and prepare for release.

Expected Release: April 2020

Timeline

Week	Applying	Est Time
Week 7	- Presentation - Documents change and agreements	presentation: 10 mins Doc: 10 hrs
Week 8	- Building Database - Building Skeleton	Database : 5 hrs Webpages: 5 hrs
Week 9	Building the game	game: 20 hrs
Week 10	Continue on building the game	game: 20 hrs
Week 11	- Connect to the server - Procedures	server: 10 hrs procedures: 7 hrs
Week 12	- Testing - Fixing	testing: 5 hrs fixing: 3-20 hrs
Week 13	- Make it pretty - Security	design: 20 hrs security: 5 hrs
Week 14	- Feedbacks - changes	Feedback: 20 hrs changes: 5-20 hrs
Week 15	Presentation	
Week 16	Final week (The Stress Awakens)	

THANKS