

# Code Documentation

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# API Controller

## Scripts:

- **apiController.gd (main)**

[SCRIPT] apiController.gd

## Description

**apiController.gd** serves as the HTTP REQUEST controller to communicate with the Web API and to retrieve relevant data from it.

## Properties

Data Type	Property Name
String	baseUrl
Array<String>	result
int	response_code

## Property Descriptions

- **String** baseUrl  
Base URL Route to the WEB API. Defaulted to **“https://learnz.a2hosted.com/public/api/”**
- **Array<String>** result  
JSON data retrieved from the WEB API.
- **int** response\_code  
Status of the HTTP Request Call. Returns **“200”** if successful **and “404”** if unsuccessful.

## Methods

Return Type	Method Name
void	apiCallGet (String url)
void	apiCallPut (Array<String> data , String url)
void	apiCallPost Array<String> data, String url)

void	on_HTTPRequest_request_completed (result, response_code, headers, body)
------	-------------------------------------------------------------------------

## Methods Description

- void** apiCallGet (String url)  
 Make an HTTP Get Request call to the WEB API to retrieve data from the server's database. `url` refers to the WEB API Route to make the HTTP GET Request Call.
- void** apiCallPut (Array<String> data, String url)  
 Make an HTTP Put Request call to the WEB API to update data in the server's database. `data` refers to the JSON payload to be posted and the `url` refers to the WEB API Route to make the HTTP PUT Request Call.
- void** apiCallPost (Array<String> data, String url)  
 Make an HTTP Post Request call to the WEB API to create data in the server's database. `data` refers to the JSON payload to be posted and the `url` refers to the WEB API Route to make the HTTP POST Request Call.
- void** on\_HTTPRequest\_request\_completed (result, response\_code, headers, body)  
 Invoked after an HTTP GET/PUT/POST Request has been made to the WEB API and the request has been successfully completed. `body` contains the JSON data that is being retrieved from the WEB API. `response_code` contains the status of the HTTP Request Call.

# Global Controller

## Scripts

- **global.gd** (main)

### [SCRIPT] global.gd

#### Description

**global.gd** is used for handling the navigation flow between pages as well as the screen's orientation (portrait/landscape) of the different pages.

#### Properties

Data Type	Property Name
String	current_scene_path
String	root_scene
Array<String>	history

#### Property Descriptions

- **String** current\_scene\_path  
Current URL of the Page that the User is on.
- **String** root\_scene  
URL of the Landing Page.
- **Array<String>** history  
The navigation history (sequence of visited Pages) of the User.

#### Methods

Return Type	Method Name
void	switch_scene (String path)
void	return_to_last()
void	set_sceen_orientation (value)

#### Methods Description

- **void** switch\_scene (String path)



Changes the Page of the application based on the url provided by the path.

- **void** return\_to\_last()  
Returns to the previous page based on the User's Navigation History.
- **void** set\_screen\_orientation (value)  
Sets the default screen orientation for the Page. "Portrait Mode" if value is 1,  
"Landscape Mode" if value is 0

# Login Controller

## Scripts:

- loginController.gd
- **login\_button.gd (Main)**
- **reset\_btn.gd (Main)**
- loginController.gd
  - Description: Handles Show/Hide of UI Elements
- forget\_password.gd
  - Description: Handles Forget Password Popup Box
- forget\_pass\_sucess\_popup.gd
  - Description: Handles Popup Box for Successful Forget Password
- noAccount\_popup.gd
  - Description: Handles Popup Box for Login Error

## [SCRIPT] login\_Btn.gd

### Description

**login.gd** is used for handling users' login into the LearnEz's application.

### Properties

Data Type	Property Name
String	url
Array<String>	result
int	responseCode
Object	usernameLabel
Object	passwordLabel
Object	loading_bg
Object	loading_sprite

### Property Descriptions

- **String** url  
URL Extension Route for WEB API
- **Array<String>** result

JSON data retrieved from the WEB API.

- **int** responseCode  
Status of the HTTP Request Call.
- **Object** usernameLabel  
"Username Field is empty" Label.
- **Object** username Label  
"Password Field is empty" Label.
- **Object** loading\_bg  
Background for Loading Screen
- **Object** loading\_sprite  
Image for Loading Screen

#### Methods

Return Type	Method Name
void	verifyUser()
void	getUserInfo()

#### Methods Description

- **void** verifyUser()  
Verifies User's Input fields (User ID and Password). If fields are not empty, make API call to get User's Data. Triggers noAccount\_Popup.gd if User's Data cannot be found. Invokes getUserInfo() otherwise.
- **Void** getUserInfo()  
Updates User's Model with retrieved User's Data. Check for User's Role and redirects to the respective Main Menu Page.

#### [SCRIPT] reset\_Btn.gd

##### Description

**reset.gd** is used for resetting User's Password

##### Properties

Data Type	Property Name
String	url
Array<String>	result
int	responseCode
Object	resetByIDLbl
Object	resetPasswordErr

### Property Descriptions

- **String** url  
URL Extension Route for WEB API
- **Array<String>** result  
JSON data retrieved from the WEB API.
- **int** responseCode  
Status of the HTTP Request Call.
- **Object** resetByIDLbl  
User's Input Field (Matriculation Number / Staff ID).
- **Object** resetPasswordErr  
"User ID Field is empty" Label.

### Methods

Return Type	Method Name
void	resetPassword()

### Methods Description

- **void** resetPassword()  
Verifies User's Input field (User ID). If field is not empty, make API call to get User's Data. Shows resetPasswordErr if User's Data cannot be found. Send Reset Password link to user's registered email otherwise.

# Settings Controller

## Scripts:

- **change\_password\_box.gd (Main)**
- logout\_box.gd
  - Renders the logout scene, as well as button logic
- password\_updated\_box.gd
  - Renders the pop up message to inform user of successful/unsuccessful password change, as well as register when user closes the pop up message.
- SettingsController.gd
  - Handles the processing and displaying of relevant user's information on the settings page.

## [SCRIPT] change\_password\_box.gd

### Description

**Change\_password\_box.gd** handles the password changing process, including validation of user input, and database update.

### Properties

Data Type	Property Name
String	url
Array<String>	result
int	responseCode

### Property Descriptions

- **String** url  
URL Extension Route for WEB API
- **Array<String>** result  
JSON data retrieved from the WEB API.
- **int** responseCode  
Status of the HTTP Request Call.

## Methods

Return Type	Method Name
void	verifyPasswordInput

## Methods Description

- **verifyPasswordInput()**  
Verifies User's Input fields (Password & Re-Enter Passwords). If fields are empty or do not match, show error message. Otherwise, make API call to update User's Password based on User's Input.

# Avatar Controller

## Scripts:

- **confirmation\_popup.gd (Main)**
- AvatarController.gd
  - Description: Handles user selection of Avatar and display of Selected Avatar

## [SCRIPT] confirmation\_popup.gd

### Description

**confirmation\_popup.gd** is used for updating User's Avatar.

### Properties

Data Type	Property Name
String	apiUrl
Array<String>	result
int	responseCode

### Property Descriptions

- **String** url  
URL Extension Route for WEB API
- **Array<String>** result  
JSON data retrieved from the WEB API.
- **int** responseCode  
Status of the HTTP Request Call.

### Methods

Return Type	Method Name
void	closeConfirmationDialog()
void	handleChangeAvatar()

## Methods Description

- **closeConfirmationDialog()**  
Hides the Avatar Confirmation Popup.
- **handleChangeAvatar**  
Make API Call to update User's Avatar based on selected Avatar.



# User Model

## Scripts:

- **userModel.gd (Main)**

[SCRIPT] userModel.gd

## Description

**userModel.gd** is used for storing information of a User

## Properties

Data Type	Property Name
String	baseUrl
String	userID
String	userEmail
String	userName
String	userPassword
String	userRole
String	userAvatarID
String	userAvatar
String	userGroup
int	userCurrency

## Property Descriptions

- **String baseUrl**

Setter	setBaseUrl (url)
Getter	getBaseUrl()

- **String userID**

Setter	setUserID (userID)
--------	--------------------

Getter	getUserID()
--------	-------------

- **String userEmail**

Setter	setUserEmail (userEmail)
Getter	getUserEmail()

- **String userName**

Setter	setUserName (userName)
Getter	getUserName()

- **String userPassword**

Setter	setUserPassword (userPassword)
Getter	getUserPassword ()

- **String userRole**

Setter	setUserRole (userRole)
Getter	getUserRole()

- **String userAvatarID**

Setter	setUserAvatarID (userAvatarID)
Getter	getUserAvatarID()

- **String userAvatar**

Setter	setUserAvatar (userAvatar)
Getter	getUserAvatar()

- **String userGroup**

Setter	setUserGroup (userGroup)
Getter	getUserGroup ()

- **String userCurrency**

Setter	setUserCurrency (userCurrency)
--------	--------------------------------

Getter	<code>getUserCurrency(userCurrency)</code>
--------	--------------------------------------------

# View UCL Controller

## Scripts:

- **UCLView.gd (Main)**

### [SCRIPT] UCLView.gd

#### Description

**UCLView.gd** handles the fetching and displaying of user created levels, as well as the user's selected user created level. It also handles the logical navigation of the page and can redirect the user to create a new level.

#### Properties

```
var apiUrl_UCL = "ucl/all/all"
var result_UCL
var responseCode_UCL
var base_index = 0
var max_index
var nextPage = "true"
var number_to_minus = 0
var pageNumber = 1
var returnResult = []
```

Data Type	Property Name
String	apiUrl_UCL
Array<String>	result_UCL
String	responseCode_UCL
int	base_index
int	max_index
Boolean	nextPage
int	number_to_minus
int	pageNumber
int	returnResult

## Property Descriptions

- **String** apiUrl\_UCL  
URL used for fetching all UCLs from database.
- **Array<String>** result\_UCL  
This is an array of dictionary, fetched from database. Each dictionary in the array is a question in a user created level.
- **String** responseCode\_UCL  
Response code used for the developer to troubleshoot.
- **int** base\_index  
Used for checking the current page, and for ensuring smooth navigation. It starts at 0.
- **int** max\_index  
Used for ensuring the user cannot navigate to a page where there are no UCLs to be displayed.
- **Boolean** nextPage  
A boolean signal to determine whether the next page option should be displayed.
- **int** number\_to\_minus  
This is used together with base\_index for navigational purposes.
- **int** pageNumber  
pageNumber is an integer used to ensure that the user's selected UCL can be found in result\_UCL.
- **int** returnResult  
An integer for the user's chosen UCL index within the result\_UCL array.

## Methods

Return Type	Method Name
void	render_ucl

## Methods Description

- **render\_ucl**  
Function that is called whenever the next page or previous page button is pressed. Also a function called when the scene loads. It handles displaying the correct UCL, in the correct order.

# Create UCL Controller

## Scripts:

- **CreateUCLController.gd**

[SCRIPT] CreateUCLController.gd

## Description

This controller handles the loading, as well as creation of UCL logic.

## Properties

Data Type	Property Name
String	url
Array<String>	result_UCL
int	responseCode_UCL

## Property Descriptions

- **String** url  
The url used to fetch all UCL from database.
- **Array<String>** result\_UCL  
An array of UCL information.
- **int** responseCode\_UCL  
Used by the developer to check the response code of the database request.

## Methods

Return Type	Method Name
void	create_Pressed

## Methods Description

- **create\_Pressed()**  
Handles the logic for creating a user created level, in the database.

# UCL Model

## Scripts:

- **uclModel.gd (Main)**

[SCRIPT] uclModel.gd

## Description

**uclModel.gd** is used for storing information of all User Created Levels.

## Properties

Data Type	Property Name
String	baseUrl
int	selectedUCL
String	selectUCLIdx
String	ucl

## Property Descriptions

- **String baseUrl**

Setter	setBaseUrl (url)
Getter	getBaseUrl()

- **String selectedUCL**

Setter	setSelectedUCL(UCLId)
Getter	getSelectedUCL(UCLId)

- **Array<String> selectUCLIdx**

Setter	setSelectedUCLIdx(idx)
--------	------------------------

- **Array<String> ucl**

Setter	setUCL (ucl)
--------	--------------

Getter	getNumberOfUCL()
Getter	getUCLByIdx(idx)
Getter	getUCLNameByIdx(idx)



# Game Controller

## Scripts:

- **Game.gd (Main)**
- **Map.gd (Main)**
- **Player.gd (Main)**
- **gameClearPopup.gd (Main)**
- **Questions.gd (Main)**
- **playermodel.gd**
- **Timer.gd**
- **TimeUpPopUp.gd (Main)**

## [SCRIPT] Map.gd

### Description

**Game.gd** is used to control the game's map and enemy generation.

### Methods

Return Type	Method Name
void	_ready
void	loadQuestions

### Methods Description

- **\_ready**  
Function is called during scene transition into Game. \_ready handles generation of 'Time Up' button generation and population of gameModel environmental variables.
- **loadQuestions**  
Function is called during \_ready. loadQuestions generates the question list through connection with the APIController to load questions from the server database. It populates gameModel with a list of questions with difficulty rating 1-10.

## [SCRIPT] Map.gd

### Description

**Map.gd** is used to control the game's map and enemy generation.

### Properties

Data Type	Property Name
-----------	---------------

int	tile_size
int	width
int	height
Vector2 []	enemyloc
cell_walls	dict
const int	N
const int	E
const int	S
const int	W

### Property Descriptions

- **int tile\_size**  
Determines the length of the square tile edges in pixels.
- **int width**  
Determines the number of tiles in the width of the TileMap used to generated the maze.
- **int height**  
Determines the number of tiles in the height of the TileMap used to generated the maze
- **Vector2[] enemyloc**  
Array of vectors used to determine existing enemy locations
- **dict cell\_walls**  
Dictionary used to determine representation of directions in each tile. The keys are the unit vectors of direction mapped to the corresponding string.
- **const int N**  
Bit representing presence of wall in north direction.
- **const int E**  
Bit representing presence of wall in east direction.
- **const int S**  
Bit representing presence of wall in south direction.
- **const int W**  
Bit representing presence of wall in west direction.

### Methods

Return Type	Method Name
void	_ready

void	_physics_process
list	check_neighbours
void	make_maze
list	shuffleList
void	make_enemy
void	generate_enemies

## Methods Description

- **\_ready**  
Function is called during scene transition into Game. \_ready handles generation of map using make\_maze and generation of enemies using generate\_enemies.
- **\_physics\_process**  
Function is called during every physics calculation step of the Game. \_physics\_process handles the detection of collision between player object and enemy objects, and subsequent triggers of quizzes or completion. Collision between player and terrain is handled through the game engine and not explicitly defined in this function.
- **check\_neighbours**  
Function is called during make\_maze to check the unvisited neighbours of a particular cell. It returns a list of unvisited cells.
- **make\_maze**  
Function is called to procedurally generate the maze environment using recursive backtracking. It directly edits the TileMap object within the game environment. It uses int width and int height to determine the size of maze that will be generated.
- **shuffleList**  
Function is called to shuffle a list. As Godot does not have an inbuilt list shuffling function, shuffleList is implemented.
- **make\_enemy**  
Function is called to place enemy object on the map and create corresponding enemy object.
- **generate\_enemy**  
Function is called to generate enemies after the procedurally generated maze is created. The enemies position is randomly selected within the size of the maze using int width and int height. The enemies position will never be at the start of the maze. Generate\_enemy uses make\_enemy to place the enemy object into the engine's environment

## [SCRIPT] Player.gd

### Description

**Player.gd** is used to control the player movement within the game area.

### Properties

Data Type	Property Name
int	SPEED
Vector2	velocity
Vector2	screen_size

### Property Descriptions

- **int SPEED**  
Determines the maximum speed of the player.
- **Vector2 velocity**  
Determines the current velocity of the player.
- **Vector2 screen\_size**  
Determines the maximum play area of the player.

### Methods

Return Type	Method Name
void	_ready
void	_physics_process

### Methods Description

- **\_ready**  
Function is called during scene transition into Game. \_ready handles the collection of the current device's screen size.
- **\_physics\_process**  
Function is called during every physics calculation step of the Game.  
\_physics\_process handles player movement and clamps the position of the player to never exceed the screen size. Player movement is 8-way.

## [SCRIPT] gameClearPopup.gd

### Description

**gameClearPopup.gd** is used to control the game's completion

### Methods

Return Type	Method Name
void	updateUserGameClear():

### Methods Description

- **updateUserGameClear**  
updateUserGameClear is used to update the server database when the player completes the game successfully. updateUserGameClear makes a database entry with the stage of the game and the relevant score.

## [SCRIPT] Questions.gd

### Description

**Questions.gd** is used to control question fetching.

### Properties

Data Type	Property Name
int	randomQuestionIdx
JSON array	currQuestion
int	correctOption

### Property Descriptions

- **int randomQuestionIdx**  
Determines the index of which to fetch the question.
- **JSON array currQuestion**  
Stores the question description, options and correct answers for each question.
- **Int correctOption**  
Determines the index of the correct option.

## Methods

Return Type	Method Name
void	<code>_ready</code>
void	<code>loadCurrentQuestion</code>
void	<code>useFiftyfifty()</code>

## Methods Description

- **`_ready`**  
Function is called during scene transition into question. `_ready` obtains the number of '50-50' powerups and enables their use.
- **`loadCurrentQuestion`**  
Function is called during `_ready` to load the question to be used in the question popup. `loadCurrentQuestion` access the `gameModel` object to randomly generate a question of the relevant difficulty using `int randomQuestionIdx` and external method `getQuestionsByDifficulty`.
- **`useFiftyFifty`**  
Function is called whenever '50-50' is used. Function handles controller logic to ensure correct use of the powerup.

## [SCRIPT] TimeUpPopUp.gd

### Description

**TimeUpPopUp.gd** is used to prompt the user when their time is up in the maze.

### Properties

Data Type	Property Name
int	<code>ms</code>
int	<code>s</code>
int	<code>m</code>
boolean	<code>running</code>
signal	<code>no_time</code>

## Property Descriptions

- **int ms**  
Determines the time of the game.
- **int s**  
Stores the second of the timer.
- **int m**  
Stores the minute of the timer.
- **boolean running**  
Check if the timer is still running.
- **signal no\_time**  
Check if the timer has run out of time.

## Methods

Return Type	Method Name
void	<code>_process</code>
void	<code>_on_ms_timeout</code>

## Methods Description

- **`_process`**  
Function is called during the start of the game. `_process` will obtain the total time for the timer for the game that is being played. It also checks if the timer has run out of time and return a signal of timeout.
- **`_on_ms_timeout`**  
Function is called to decrease the timer as the timer is counting down

# Level Model

## Scripts:

- **levelModel.gd**

[SCRIPT] levelModel.gd

## Description

Acts as the model for storing all level information.

## Properties

Data Type	Property Name
String	baseUrl
int	selectedLevel
int	selectedLevelIdx
Array<Object>	levels
int	unlockStatus

## Property Descriptions

- **String baseUrl**

Setter	setBaseUrl (url)
Getter	getBaseUrl()

- **String selectedLevel**

Setter	setSelectedLevel (levelID)
--------	----------------------------

- **String selectedLevelIdx**

Setter	setSelectedLevelIdx(idx)
--------	--------------------------

- **Array<Object> levels**

Setter	setLevels(levels)
--------	-------------------



Getter	getLevelByIdx(idx)
Getter	getNumberOfLevels()
Getter	getLevelNameByIdx(idx)
Getter	getLevelStageByIdx(idx)
Getter	getLevelDescription(idx)

- **int unlockStatus**

Setter	setUnlockStatus(status)
Getter	getLevelScoreByIdx(idx)
Getter	getLevelUnlockStatusByIdx(idx)

# Powerup Model

## Scripts:

- **powerupModel.gd (Main)**

[SCRIPT] powerupModel.gd

## Description

**powerupModel.gd** is used for storing information of powerup information

## Properties

Data Type	Property Name
String	baseUrl
Array<Object>	powerups
int	selectedPowerupIdx
int	selectedPowerup

## Property Descriptions

- **String baseUrl**

Setter	setBaseUrl (url)
Getter	getBaseUrl()

- **Array<Object> powerups**

Setter	setPowerups(powerups)
--------	-----------------------

- **Object selectedPowerupIdx**

Setter	setSelectedPowerupIdx(idx)
Getter	getSelectedPowerupIdx()

- **Object selectedPowerup**

Setter	setSelectedPowerup()
--------	----------------------

Getter	getSelectedPowerupCost()
Getter	getSelectedPowerupName()
Getter	getSelectedPowerupID()

# Assignment Board Controller

## Scripts:

- **AssignmentController.gd (Main)**
- **No\_Assignment\_Popup.gd**
- **Post\_Assignment\_Sucess\_Popup.gd**
- **PostAssignment.gd (Main)**

## [SCRIPT] AssignmentController.gd

### Description

This controller handles the viewing of the assignment.

### Properties

Data Type	Property Name
String	no_assignment_background
String	default_background
String	apiUrl
String	apiUrl_student
String	apiUrl_teacher_group
String	apiUrl_teacher_all
Array<String>	result
int	responseCode
String	selectedClass
boolean	select_class
int	base_index
int	max_index
boolean	go_left
boolean	go_right

## Property Descriptions

- **String no\_assignment\_background**  
An image that is displayed when there is no assignment available
- **String default\_background**  
An image background that is displayed when there is an assignment available
- **String apiUrl**  
URL Extension Route for WEB API
- **String apiUrl\_student**  
URL Extension Route for WEB API for student
- **String apiUrl\_teacher\_group**  
URL Extension Route for WEB API for teacher groups
- **String apiUrl\_teacher\_all**  
URL Extension Route for WEB API for teacher
- **String result**  
An array of Assignment Controller results
- **Int response**  
Status of the HTTP Request Call
- **String selectedClass**  
Selected class in the teacher's groups
- **boolean select\_class**  
Fetch the specified class or retrieve all the class group for assignment
- **int base\_index**  
Using a base number to move back and forth between the assignment pages
- **int max\_index**  
Maximum allowable pages for the assignment page to go until
- **boolean go\_left**  
Check whether if there is any previous page of assignments from current page

- **boolean go\_right**

Check whether if there is any next page of assignments from current page

## Methods

Return Type	Method Name
void	render_assignment()

## Methods Description

- **render\_assignment()**  
Handles the rendering of the assignment page.

## [SCRIPT] PostAssignment.gd

## Description

This controller handles the posting of the assignment.

## Properties

Data Type	Property Name
String	url
String	apiUrl_file
String	result
String	result_fileURL
int	responseCode
String	responseCode_URL
String	selectedClass
String	selectedFile
boolean	title_valid
boolean	details_valid
boolean	class_valid

boolean	file_valid
boolean	year_valid
boolean	month_valid
boolean	day_valid
boolean	minute_valid
boolean	hour_valid

### Property Descriptions

- **String url**

URL Extension Route for WEB API for teacher

- **String apiUrl\_file**

URL Extension Route for WEB API for assignment file

- **String result**

An array of Assignment Controller results

- **String result\_fileURL**

URL Extension Route for WEB API for resulting assignment file URL

- **int responseCode**

Used by the developer to check the response code of the database request

- **String selectedClass**

Selected class in the teacher's groups

- **String selectedFile**

Selected file in the teacher's groups

- **boolean title\_valid**

Check if assignment title is valid

- **boolean details\_valid**

Check if assignment detail is valid

- **boolean class\_valid**

Check if class is valid

- **boolean file\_valid**

Check if file is valid

- **boolean year\_valid**

Check if year is valid

- **boolean month\_valid**

Check if month is valid

- **boolean day\_valid**

Check if day is valid

- **boolean hour\_valid**

Check if hour is valid

- **boolean minute\_valid**

Check if minute is valid

## Methods

Return Type	Method Name
void	post_assignment_pressed()

## Methods Description

- **post\_assignment\_pressed()**  
Handles the posting of the new assignment.



# World Model

## Scripts:

- **worldModel.gd (Main)**

[SCRIPT] worldModel.gd

## Description

**worldModel.gd** is used for storing information of a World

## Properties

Data Type	Property Name
String	baseUrl
int	selectedWorld
int	selectWorldIdx
Array<Object>	worlds
int	unlockStatus

## Property Descriptions

- **String baseUrl**

Setter	setBaseUrl (url)
Getter	getBaseUrl()

- **int selectedWorld**

Setter	setSelectedWorld(worldID)
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- **int selectWorldIdx**

Setter	setSelectedWorldIdx(idx)
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- **Array<Object> worlds**

Setter	setWorlds(worlds)
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Getter	getNumberOfWorlds()
Getter	getWorldByIdx(idx)
Getter	getWorldNameByIdx(idx)
Getter	getWorldIDbyIdx(idx)

- **int unlockStatus**

Setter	setUnlockStatus(status)
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# Discussion Board Controller

## Scripts:

- DetailedDiscussion.gd
- **DiscussionBoardController.gd (Main)**
- **PostDiscussion.gd (Main)**
- Post\_Discussion\_Sucess\_Popup.gd

## [SCRIPT] DiscussionBoardController.gd

### Description

This controller handles the logic for the discussion board view.

### Properties

Data Type	Property Name
String	apiUrl_discussion
Array<Object>	result_discussion
int	responseCode_discussion
int	base_index
int	max_index
Boolean	go_right
int	number_to_minus

### Property Descriptions

- **String** apiUrl\_discussion  
Used for fetching discussions from database.
- **Array<Object>** result\_discussion  
An array of discussion objects stored after fetching from database
- **int** responseCode\_discussion  
A response code for the developer to do checks.
- **int** base\_index  
Used for navigational purposes for multi pages.
- **int** max\_index  
Used to determine how many pages there should be.
- **Boolean** go\_right  
Navigational logic, if true button appears, else it will hide.

- **int** number\_to\_minus  
Used for navigational logic.

## Methods

Return Type	Method Name
void	discussion_clicked (meta)

## Methods Description

- **discussion\_clicked (meta)**  
Handles the logic when the user selects a discussion. This method is repeated for all buttons in discussion page.

## [SCRIPT] PostDiscussion.gd

## Description

This controller handles posting discussion logic.

## Properties

Data Type	Property Name
String	url

## Property Descriptions

- **String** url  
Used for fetching discussions from database.

## Methods

Return Type	Method Name
void	post_discussion_pressed()

## Methods Description

- **post\_discussion\_pressed (meta)**  
Handles the logic when a discussion is attempted to be posted.