

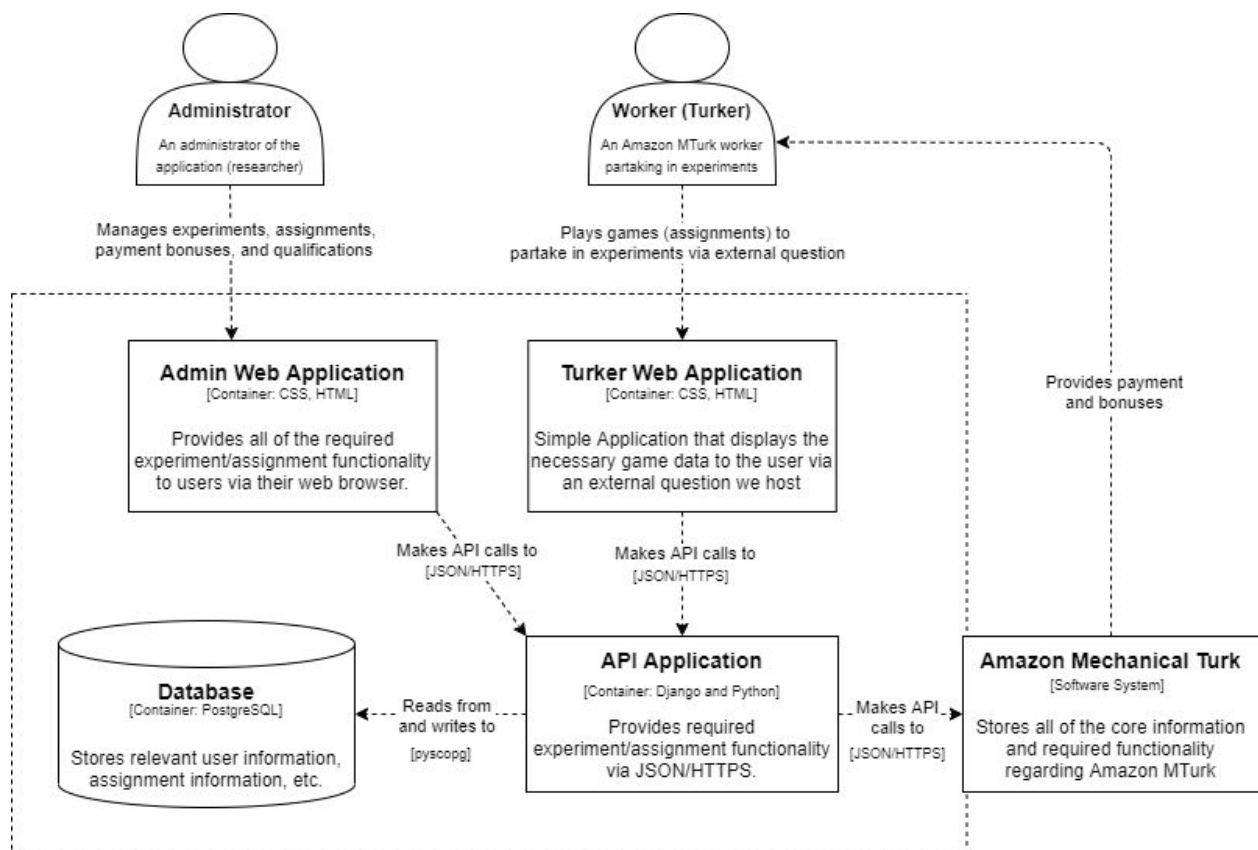
# MTurk Framework Design Document

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February 6, 2021

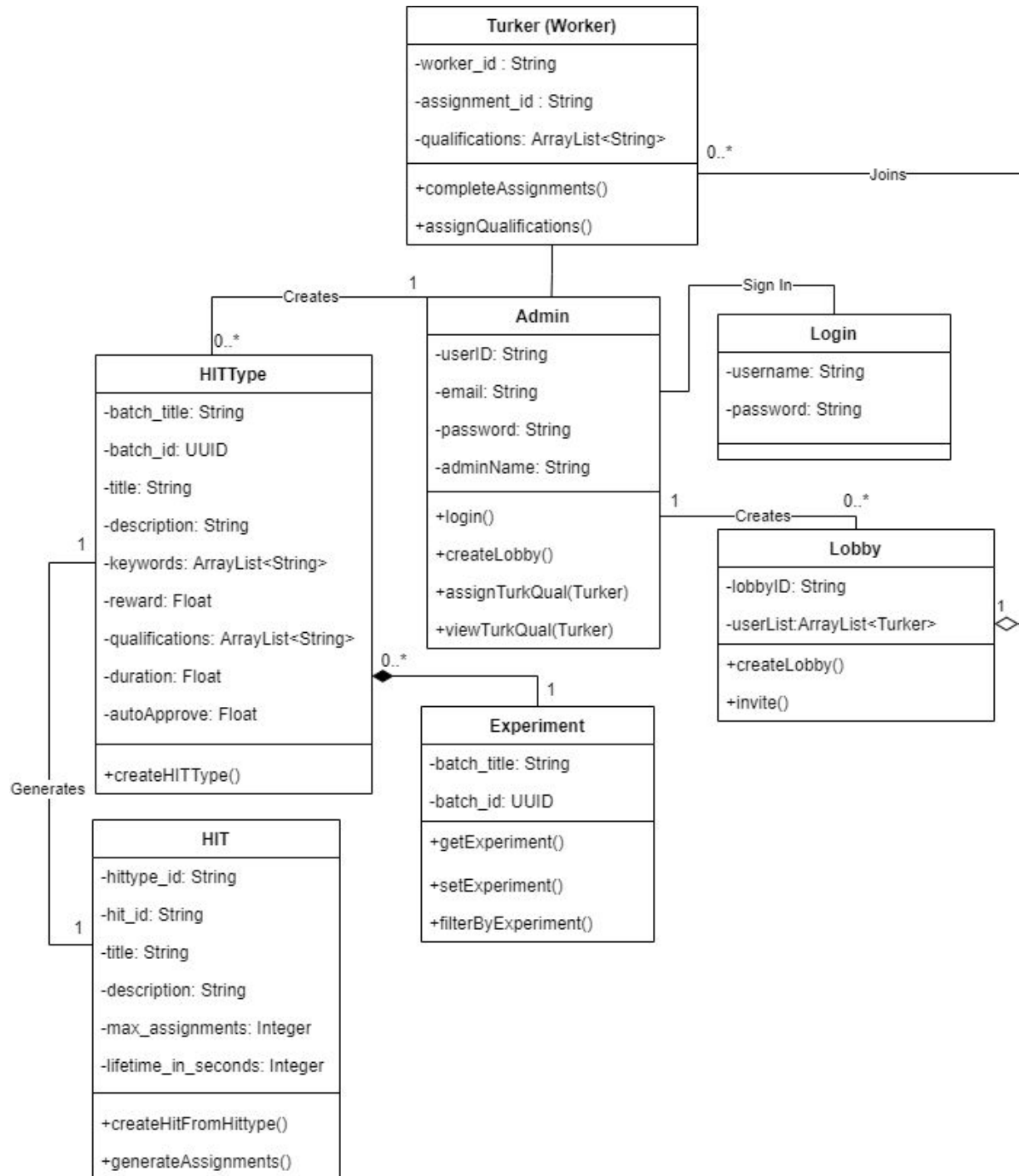
## High-Level Architecture

This is an architectural diagram that defines all the program components that we will use to make our application.



## Major Data Elements

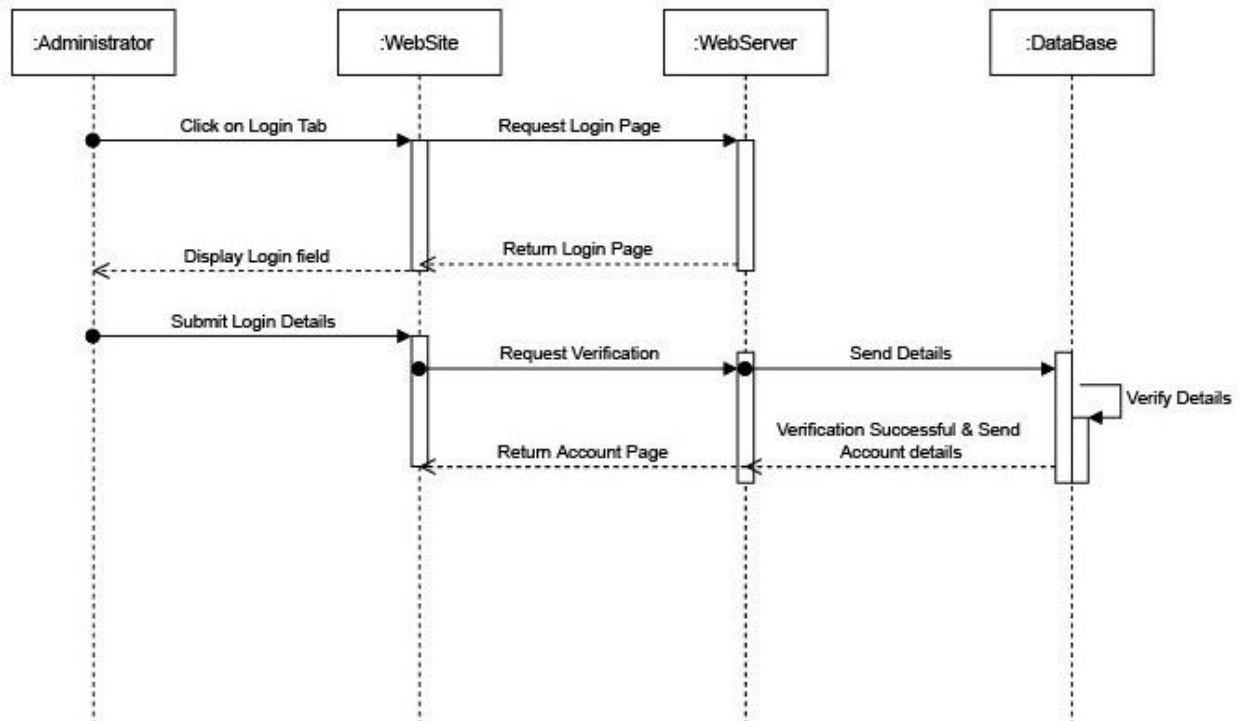
The UML class diagram lays out all the major data elements and their relationships that we expect to include in our framework.



# Interaction Scenarios

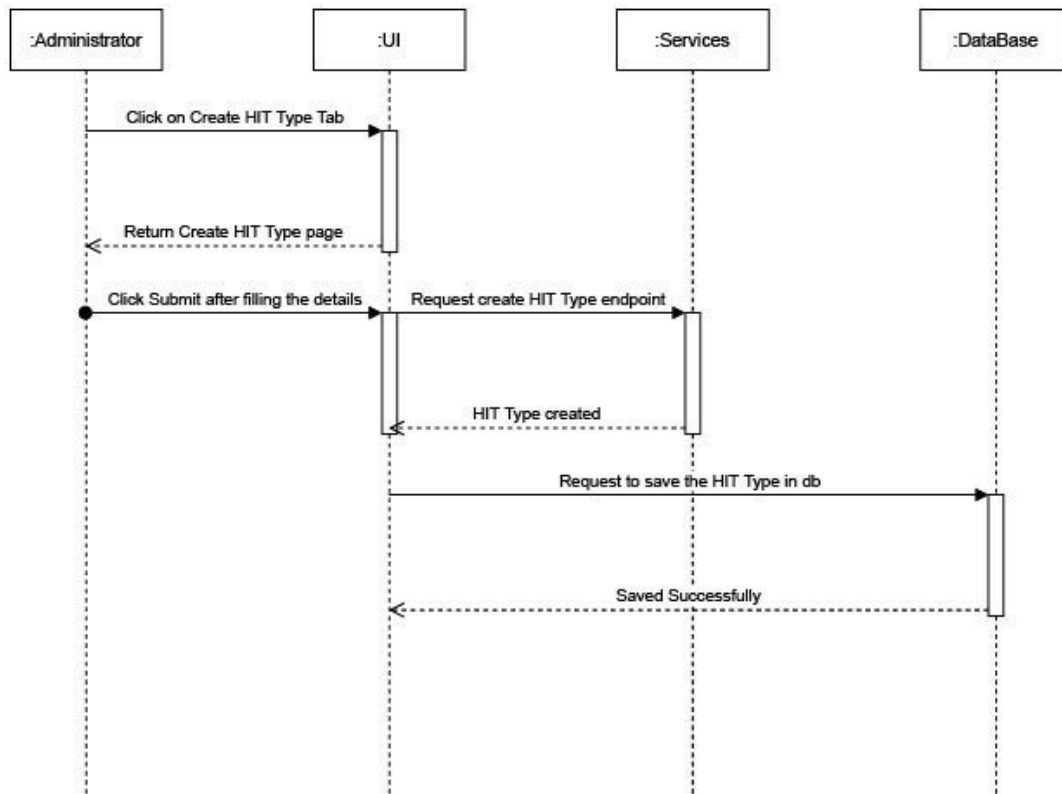
## Login:

- Administrator: User of our application.
- WebSite: The Webpage that the user can view.
- WebServer: the server on which our application is running
- Database: Database that has the login information about all the users of our application.



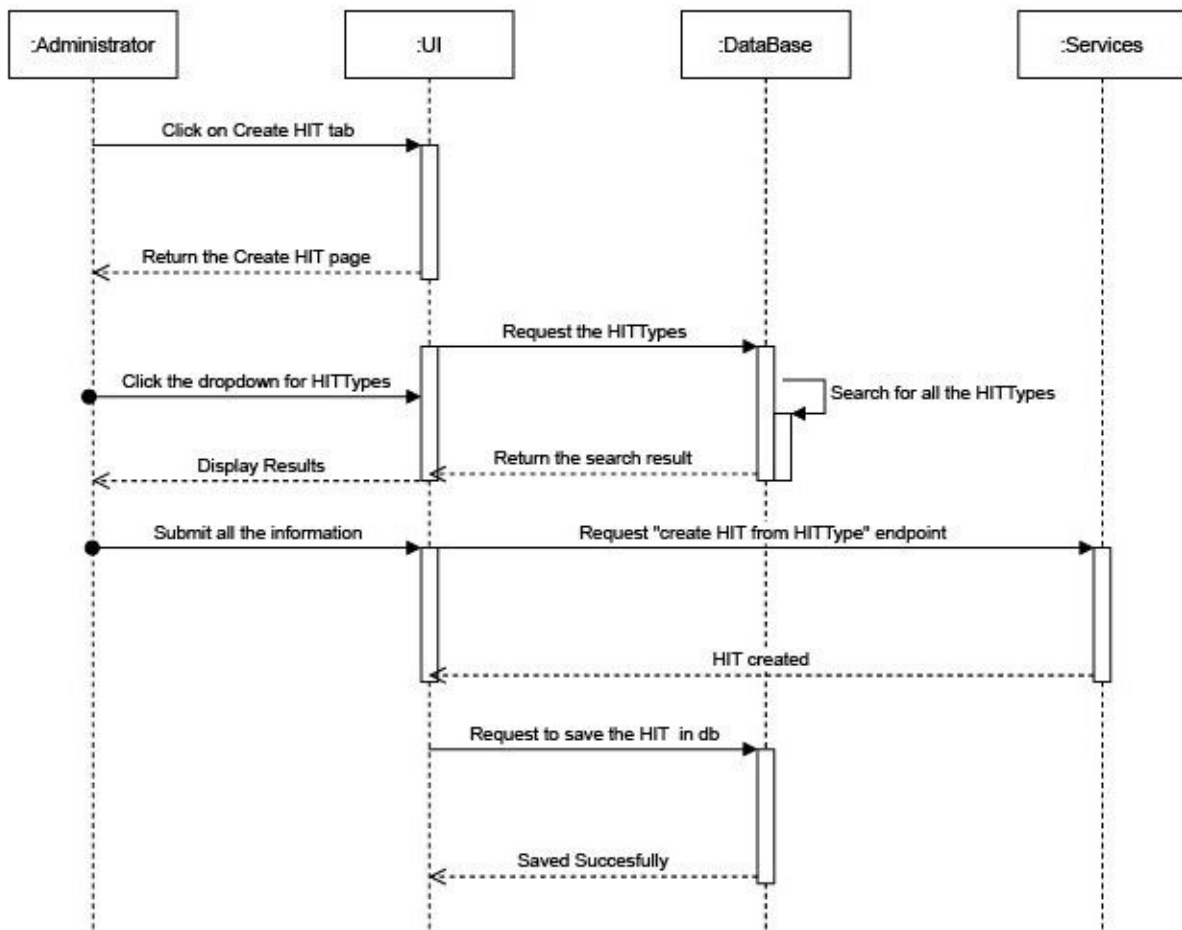
### Create HITType:

- Administrator: User of our application.
- UI: The Webpage & WebServer that the user can view.
- Services: Includes the Mturk API that is used to provide the create HITType endpoint
- Database: Database that stores all the details the administrator enters on the page about the HITType



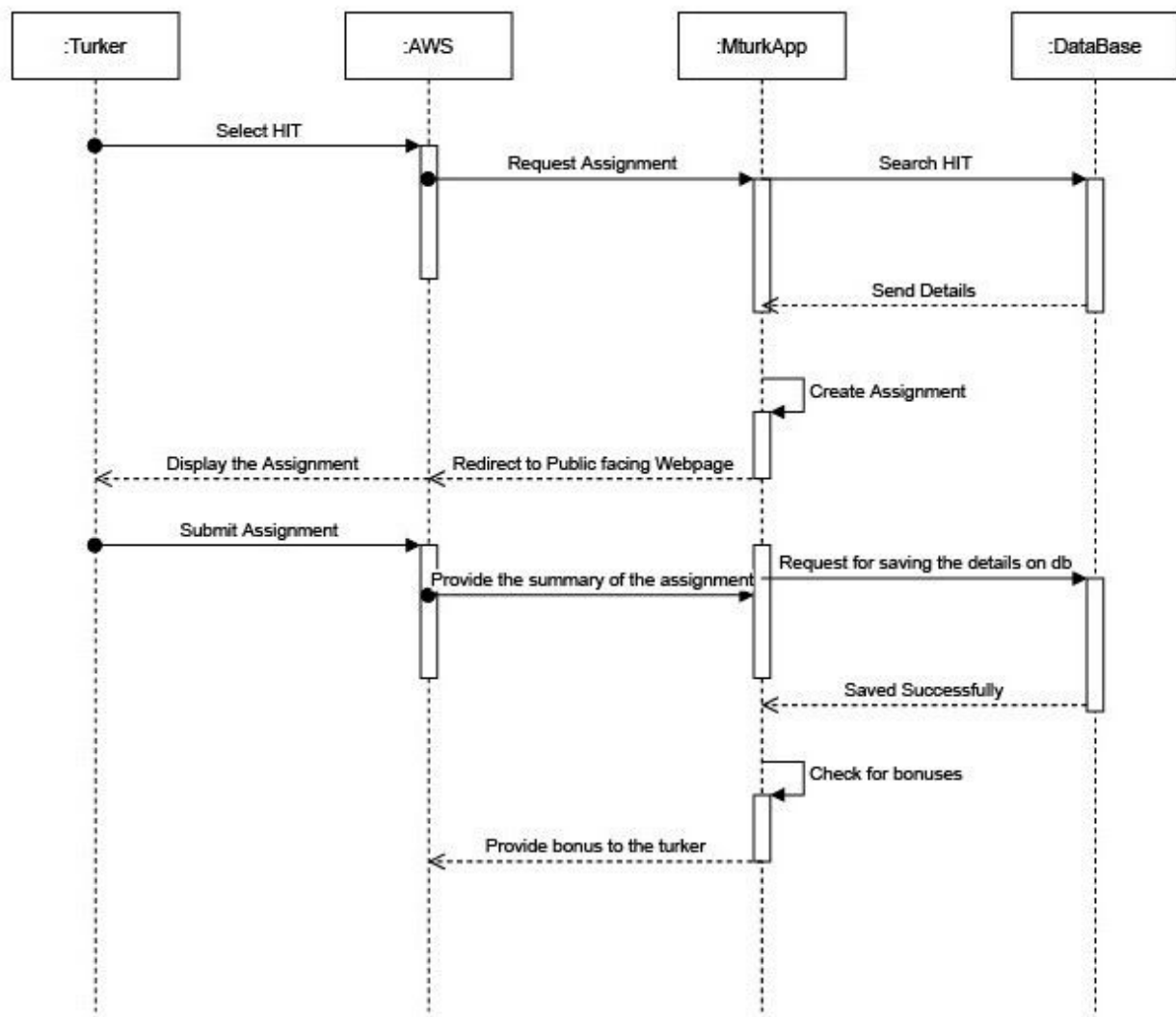
### Create HIT:

- Administrator: User of our application.
- UI: The Webpage & WebServer that the user can view.
- Services: Includes the Mturk API that is used to provide the create HIT from HITType endpoint.
- Database: Database that has the details about the HITType created by the User is used to provide details about it to create the HIT and then the HIT along with its details are saved in the database.



## Do HIT:

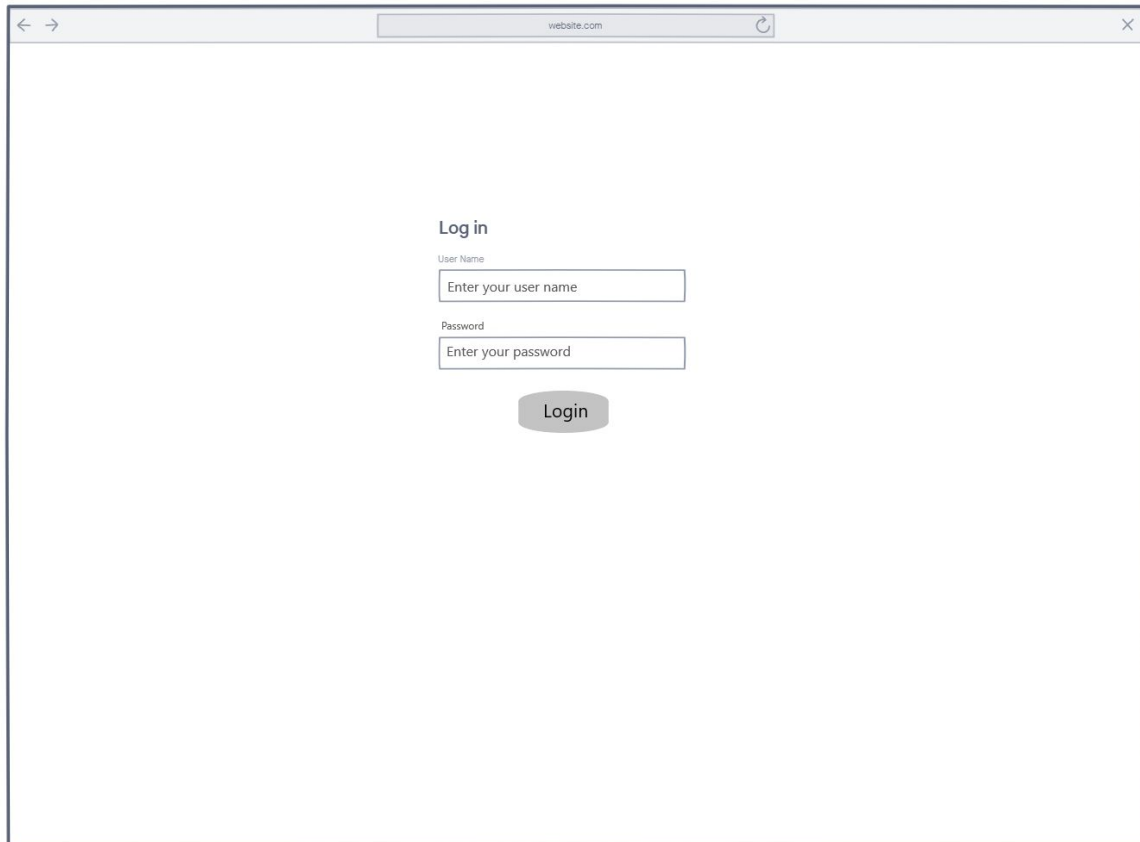
- Turker: User of AWS Services who will view our public facing web page to do the assignment.
- AWS: Amazon Mechanical Turk ( Amazon web services )
- MTurk App: Our application that would provide the redirection details about the public facing web page that will have the assignment related to the HIT. It will also calculate bonuses if there is any and provide the payment to the AWS account of the User
- Database: Database that stores all the details the HIT and assignment that the Turker did on the Public facing web page, so that the administrator can review the progress of the HITs.



# Low-Fidelity User Interface

This interface is the basic design of the login page.

This interface encapsulates the functionality described in User Stories: *MH1*



A low-fidelity wireframe of a login page within a browser window. The browser's address bar shows 'website.com'. The page content is centered and includes the following elements:

- Log in**: A heading for the login section.
- User Name**: A label above a text input field containing the placeholder text 'Enter your user name'.
- Password**: A label above a text input field containing the placeholder text 'Enter your password'.
- Login**: A rounded rectangular button located below the password field.

This interface is the basic design for the assignments page.

This interface encapsulates the functionality described in User Stories: *MH2, MH6, MH7, MH10, SH4, SH5, CH1, CH2, WL1*

The screenshot shows a web application interface for 'Maintenance'. The browser address bar shows 'website.com'. The page has a sidebar with 'Maintenance' selected, and sub-items 'User Management', 'Lobby', and 'HIT'. The main content area is titled 'Maintenance' with a 'HELP' icon and a 'View system status' link. Below the title are three buttons: 'Refresh Assignment State', 'Approve All Assignments', and 'Pay All Bonuses'. There is an 'Advanced Search' section with a 'Date' dropdown, 'Amount', 'Paid', and '...' dropdowns, and a 'Key Word' input field. Below this are 'From' and 'To' date pickers, a 'Showing Amount' dropdown, and checkboxes for 'Is Paid' and 'Is Completed'. A 'Confirm' button is at the bottom right of the search section. The 'Assignment' section lists three workers: 'Worker (worker1)', 'Worker (worker2)', and 'Worker (worker3)'. Each worker has a list of 'Instances' with checkboxes, dates, and times. The status of each instance is shown in a box: 'APPROVED' (blue) or 'PENDING' (grey). The bonus for each instance is shown in a box: '2.33' (green) or '2.33' (grey). An 'Exit Data' button is at the bottom right of the assignment list. A 'PAY SELECTED' button is at the bottom right of the page.

Maintenance [HELP](#) [View system status](#)

Refresh Assignment State Approve All Assignments Pay All Bonuses

☒ Advanced Search

From  To  Showing Amount ☐ Is Paid ☐ Is Completed

Assignment Exit Data

Worker (worker1)  
IPs 255.255.255.0  
Instances  
☒ Accepted 11/11/2020, 0:00:00 AM  
Submitted 11/11/2020, 0:00:00 AM  
Status   
Bonus 2.33

Worker (worker2)  
IPs 255.255.255.0  
Instances  
☐ Accepted 11/11/2020, 0:00:00 AM  
Submitted 11/11/2020, 0:00:00 AM  
Status   
Bonus 2.33

Worker (worker3)  
IPs 255.255.255.0  
Instances  
☒ Accepted 11/11/2020, 0:00:00 AM  
Submitted 11/11/2020, 0:00:00 AM  
Status   
Bonus 2.33



**This interface is the basic design for the Lobby page.**

This interface encapsulates the functionality described in User Stories: *SH2*, *SH3*

← → website.com

+ Create New Lobby

**Current Lobby**

Behavioral Economics Pilot (Tur... ▾

⚠ Viewings lobby users in batch Behavioral Economics Pilot (Turk server) ✕

0 users in current lobby

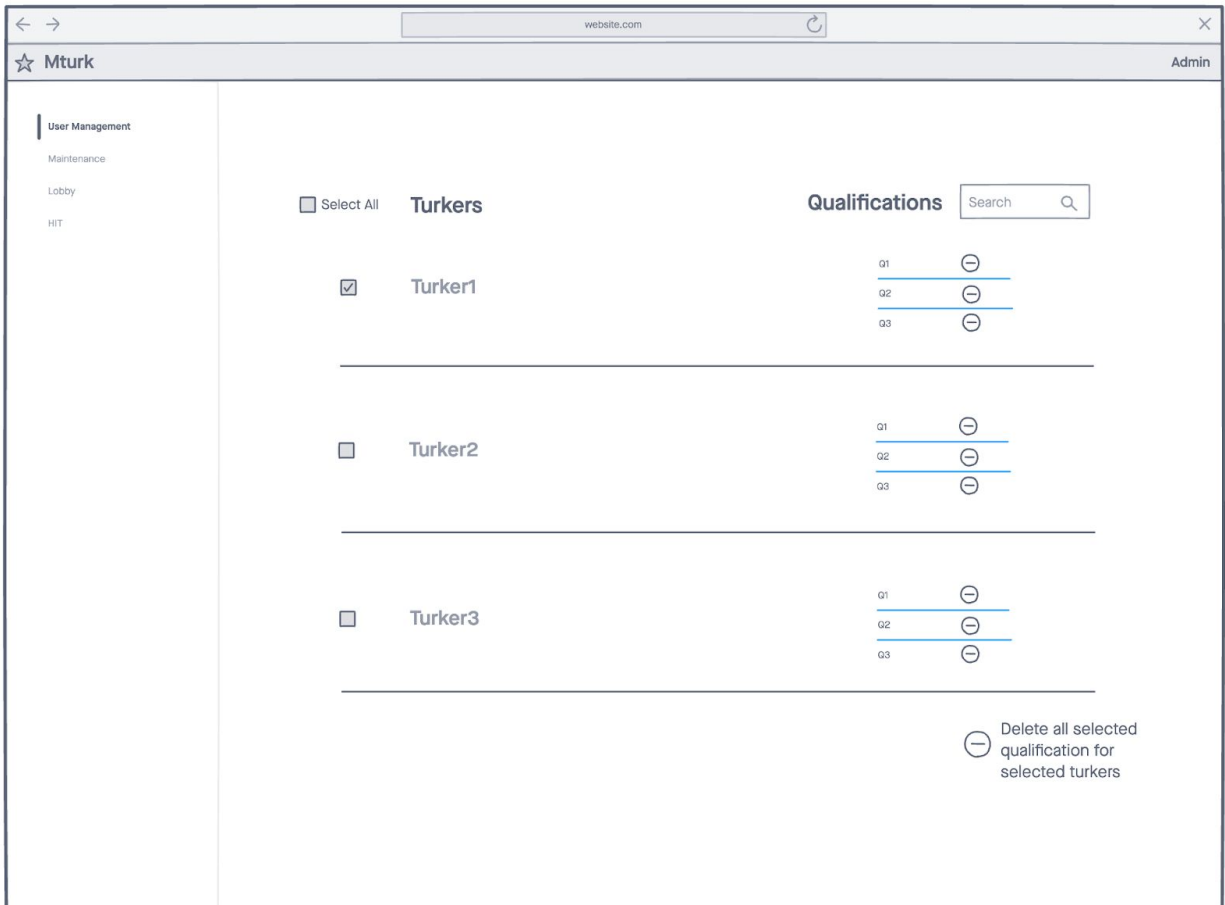
0 ready users are in current lobby

Trigger Lobby Event

User	Status
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**This interface is where you can manage qualifications for Turkers.**

This interface encapsulates the functionality described in User Stories: *MH8, MH9*



**This interface is where you can manage HITs/HITTypes.**

This interface encapsulates the functionality described in User Stories: *MH3*, *MH4*, *MH5*

