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# Introduction

## Purpose

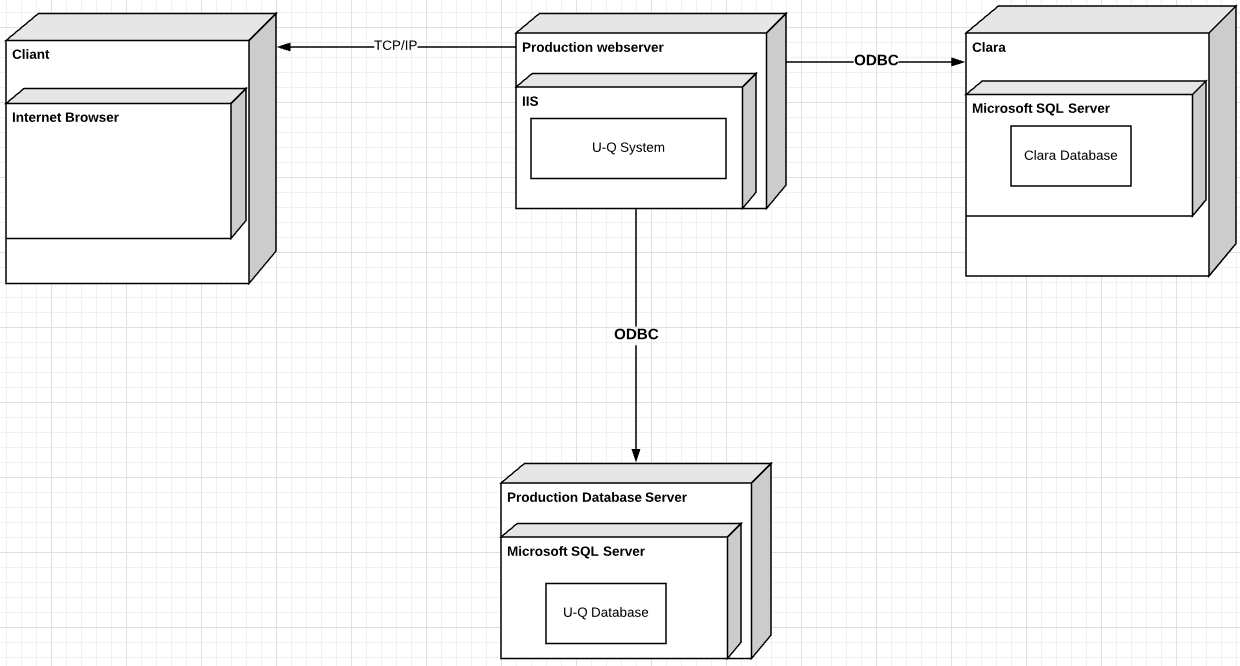
The purpose of this document is to provide install and operational guidelines for the U-Q queuing system and will cover the following topics:

* Installation
* Environment preparation
* Install and post install verification
* Configuration & setup
* Operations Procedures
* startup/shutdown/restart
* Operational Monitoring
* Basic troubleshooting & escalation

## Scope

The scope of this document is to describe in detail, the test being applied to the U-Q Queuing system. This document is used to thoroughly test each page from the U-Q system. Pages such as the queue display on the teacher’s homepage, the scheduling page, the student entry mode and the student view components. More detailed information on the architecture can be found in the U-Q Digital Log Book System Overview document.

Each component takes student or teacher information to perform actions and is then used throughout the system to manage and record information. Each component is explained in more detail in the component diagram displayed below. More detailed information on how each component functions can be found in the Architecture\_Design\_Process document.



Deployment diagram

## Target Audience

This document is intended for use as a reference by infrastructure engineers and system operators responsible for the installation and subsequent operational support of the U-Q Queuing System and related systems.

## Related documents

These documents contain information related to the information in this document.

|  |  |  |  |
| --- | --- | --- | --- |
| **Document Short Name Reference** | **Document Title** | **Version** | **File Name** |
| U-QArchDoc1 | U-Q System Overview Documentation | 0.1 | U-QSysOver.docx |
| U-QUserDoc1 | U-Q User Documentation | 0.1 | U-QUserDoc.docx |
| U-QSysDoc1 | U-Q System Design Documentation | 0.1 | U-QSysDesign.docx |

**Table 1-1 Related Documents**

## Glossary

|  |  |
| --- | --- |
| **Term/Acronym** | **Description** |
| Queue | A queue is list of sessions in an order that a teacher attends |
| Session | A session is an individual or group of students lined up in a teachers queue with a topic attached to them. |
| Topic | A topic is a sub-subject such as Calculus for Math that is connected to a session. |

**Table 1-2 Glossary**

# Installation and Setup

## Installation

### Pre-requisites

Before installing the U-Q Queuing system, please make sure the following environment requirements are met.

#### Web server Hardware Requirements:

a) 64bit OS

b) 135 MB disc space

c) 1Ghz CPU

d) 350 MB of RAM

e) a Network connection

#### Web server Software Requirements:

1. Windows Server
2. Internet Information Services

2.1.1.3 **Database Server Requirements:**

1. 100 MB disc space
2. Network connection

*Note: The procurement and install process of the required third party hardware & software components mentioned above is outside the scope of this run book and is not described.*

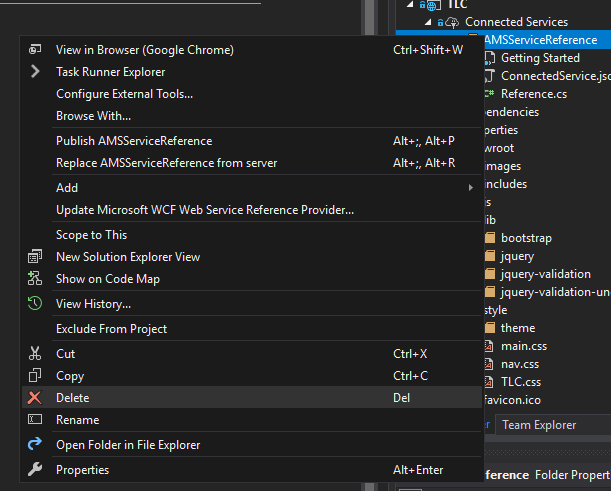
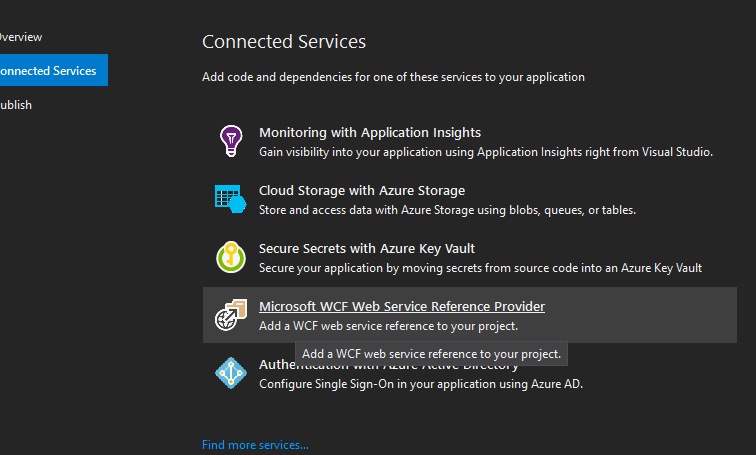
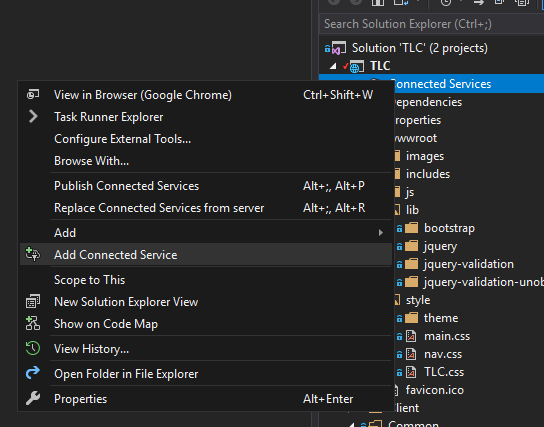
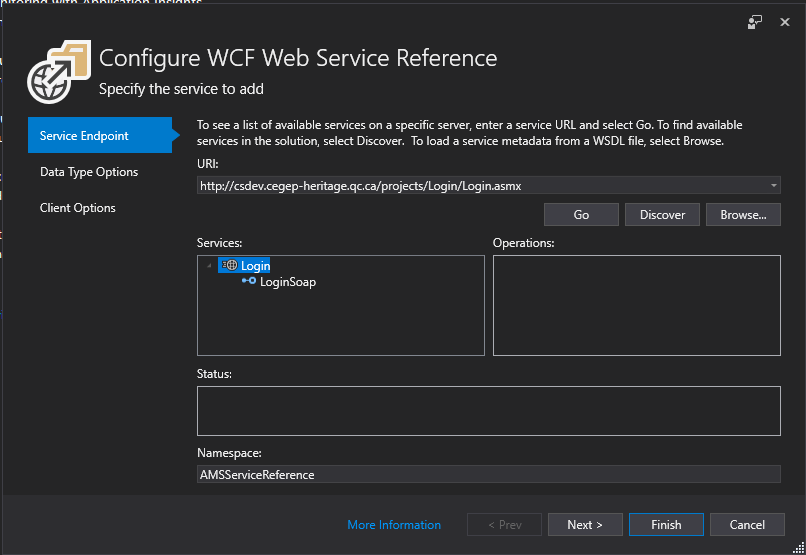
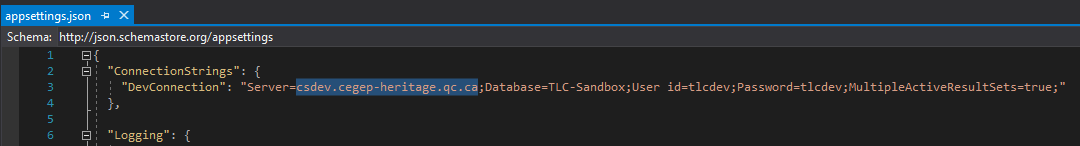
### Migration/Installation Steps

#### Pre-install verification steps:

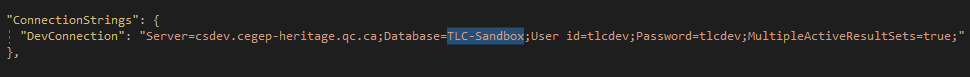
*Open powershell and enter the following to verify readiness of the server*

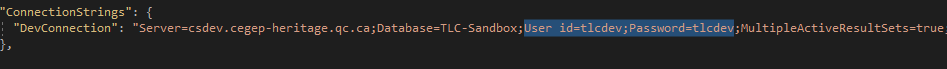
1. winver - Check the OS, kernel & 32/64 bit
2. validate hardware covers section 2.1.1.1

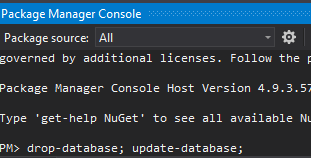
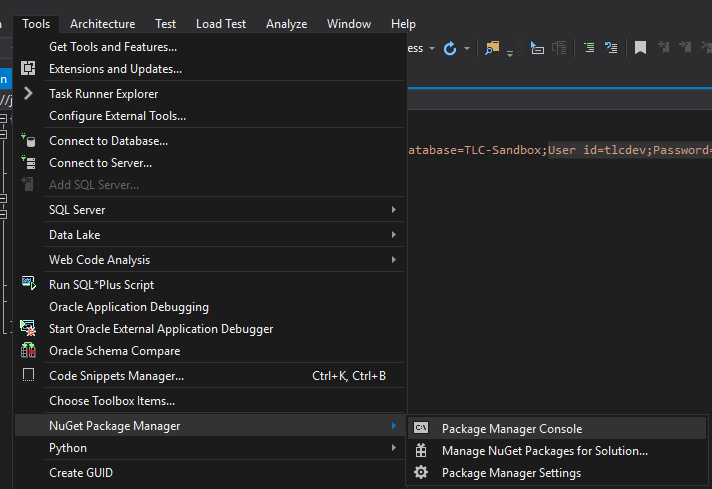
#### Installation:

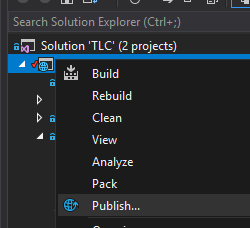
* 1. Current Version can be found at <https://cstfs.cegep-heritage.qc.ca:8080/tfs/TLC/>
  2. Open Solution in visual studio
  3. Remove Connected service “AMSServiceReference”
  4. Add Connected Service through WCF web service Reference Provider
  5. Enter URI of production AMS System, save as “AMSServiceReference”
  6. Open Appsettings.json, edit devconnection by replacing the the server URL with production database URL, 

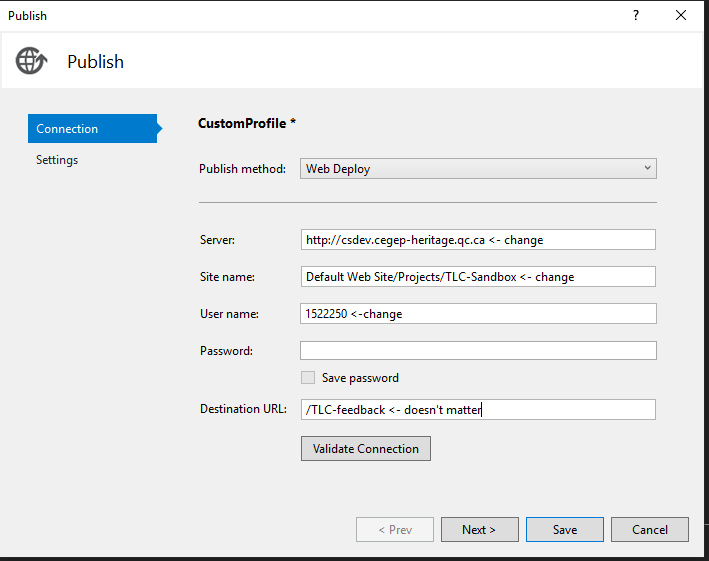
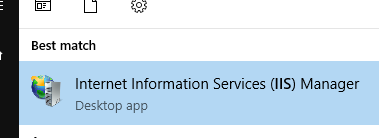
Changing the Database name to production database name,

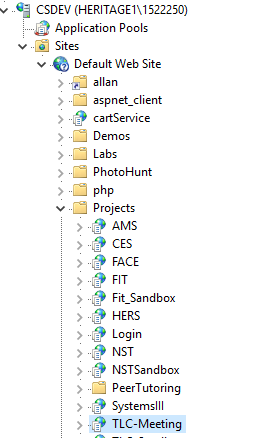


and password and user id with “Integrated Security=true”

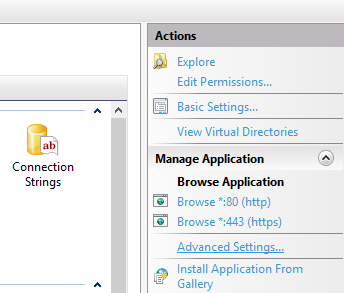
* 1. open package Manager console and run command “drop-database; update-database”, enter “y” when prompted
  2. Right click on project and select publish

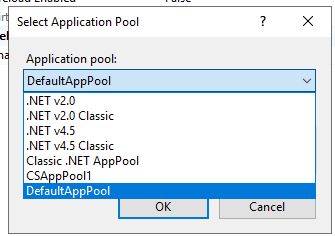
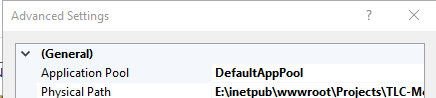


* 1. configure for production server
  2. hit publish
  3. log on to to production server
  4. open IIS Manager ( not the 6.0 version)
  5. select published website



* 1. select advanced options from the menu on the right

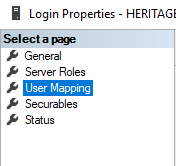


* 1. change application pool for the correct one, then hit ok
  2. log on to the production database
  3. under security, select the correct application pool

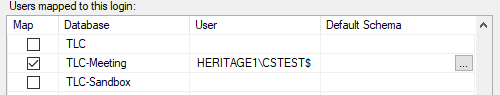


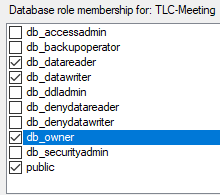


* 1. right click and select properties, then user mapping



* 1. select the correct database



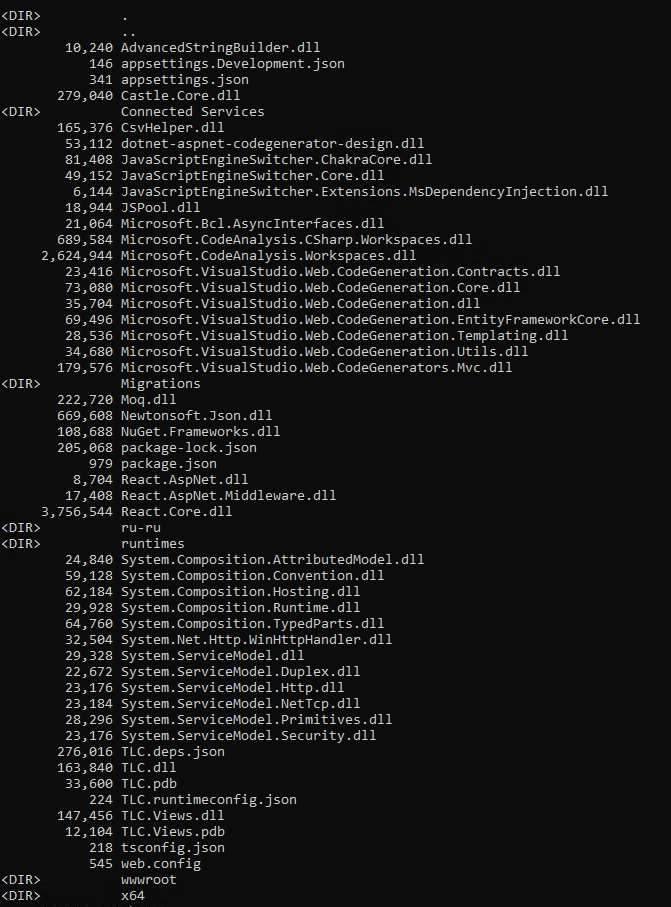
* 1. give the following permissions  
     
  2. done

#### Post Installation verification steps:

Verify the installation is correct

1. check if the directory structure is populated and files are owned by correct user ids with proper group permissions.

a dir of the install directory should look like this



1. Check the install logs and see if installs have succeeded.

## Setup & Configurations

### Dependent software and service configuration

AMS Setup:

* Login into AMS
* Select manage applications
* Check for the existence of “TLC”, if missing create it
* Select Manage Roles
* Click the pencil next to roles “TE” and “ST”
* Add application code “TLC” to the application list

### U-Q Queuing Configuration

*The configuration that the system requires is the ConnectionString to create and connect to the database.*

*appsettings.json*

{

"ConnectionStrings": {

"DevConnection": "Server=SERVER\_HOSTSERVER\_HOST;Database=DATABASE\_NAME;User id=tlcdev;Password=tlcdev;MultipleActiveResultSets=true;" // PUT DATABASE NAME AND SERVER HOST WHERE HIGHLIGHTED

},

"Logging": {

"LogLevel": {

"Default": "Warning",

"System": "Warning",

"Microsoft": "Warning"

}

},

"AllowedHosts": "\*"

}

*To validate that application has launched correctly please refer to section 3.2 “Monitoring”.*

|  |  |  |
| --- | --- | --- |
| **Attribute Name** | **Example Value** | **Notes** |
| ConnectionStrings | { "DevConnection": "Server=csdev.cegep-heritage.qc.ca;Database=TLC-thomas;User id=tlcdev;Password=tlcdev;MultipleActiveResultSets=true;" } | The DevConnection can be renamed to anything as long as it matches the code in Startup.cs |

**Table 2-1 Connection String Table**

2.2.3 React Toolchain setup

In order to publish or apply changes to the front-end JavaScript, you need to satisfy the Node requirement.

Install the latest LTS node release from: <https://nodejs.org/en/download/>

Navigate to the *TLC/TLC* project directory which contains the *Client* folder in command prompt.

Execute *npm install* in the folder to install dependencies

Execute *npm run webpack -- -p* to generate the new compiled JavaScript files

# Operations Procedure

## Basic Operations

* + 1. Manage Application

### *If at anytime there is a problem with the site when performing health checks (see section 3.2.1), in order to get in back into operation, simply:*

### *Start the “Remote Desktop Connection” application*

### *Connect to the server you are trying to fix the application in (CSDEV, CSTEST, CSPROD)*

### *Put in your username and password*

### *Search for the application “Administrative Tools”*

### *Select “Internet Information Services (IIS) Manager*

### *Open the CSDEV folder by selecting the arrow or double clicking*

### *Open the Sites folder*

* 1. Open the Default Web Site folder
  2. Open the Projects folder where you will see a list of applications

1. Right-click on your application
   1. Select the Remove Option, you can stop here if you simply want to stop the application
   2. On the resulting folder, to start the application
      1. Right click on the folder
      2. Select “Convert to Application”
      3. Review the information presented in the prompt, select OK

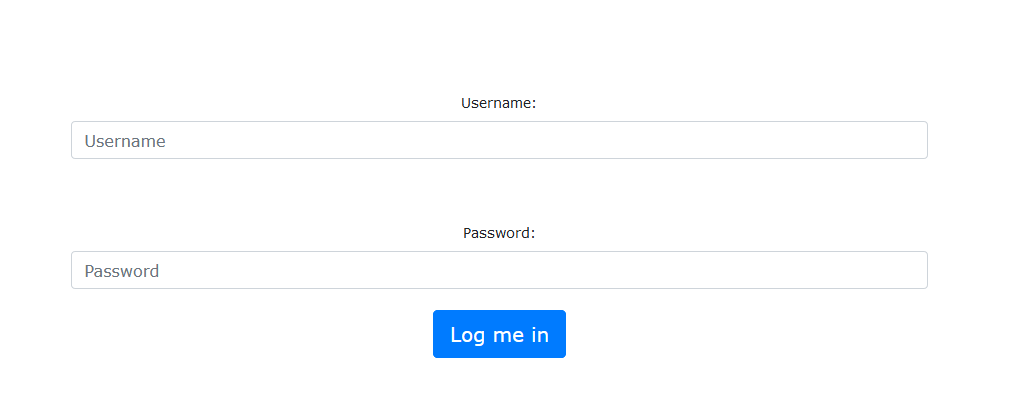
## Monitoring

### Start of Day Health Checks

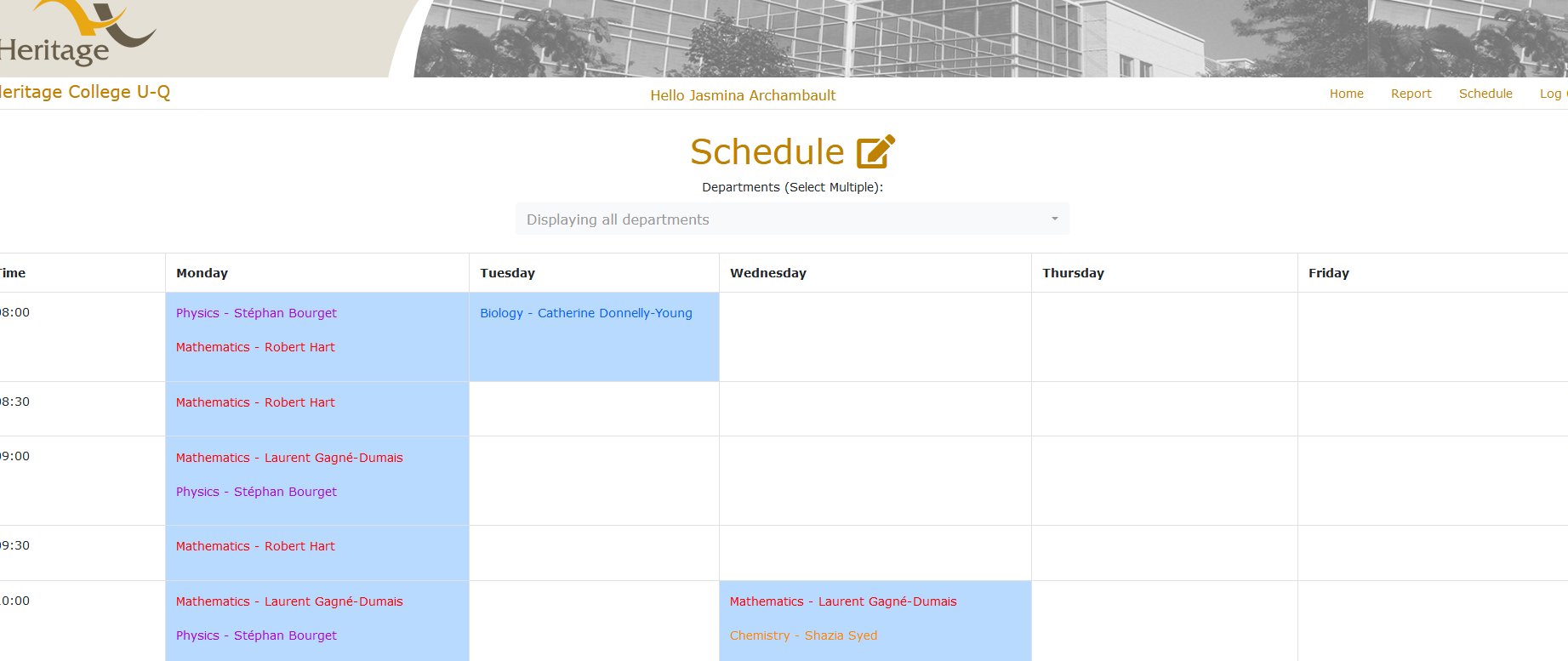
***Please note that teacher credentials are required for this health check.***

To check that the U-Q system is working please check the following steps:

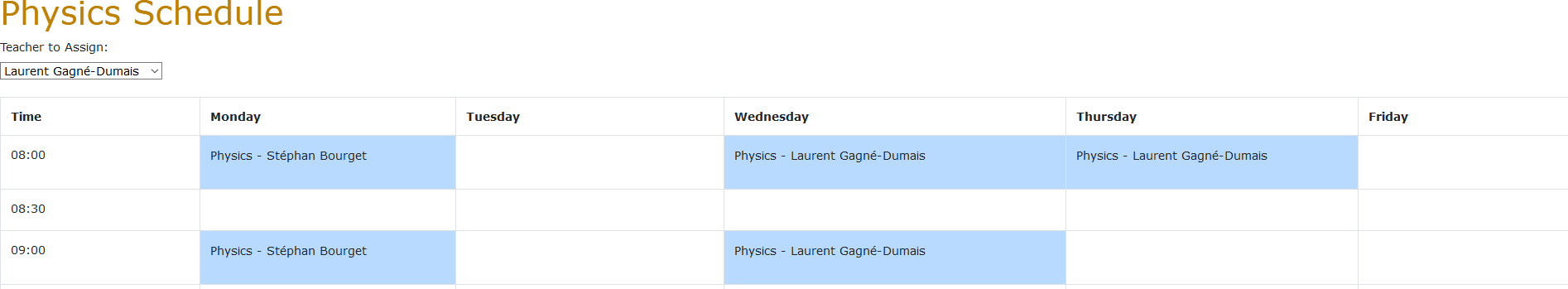
* Check to make sure the U-Q login page appears in its default URL without an error message.



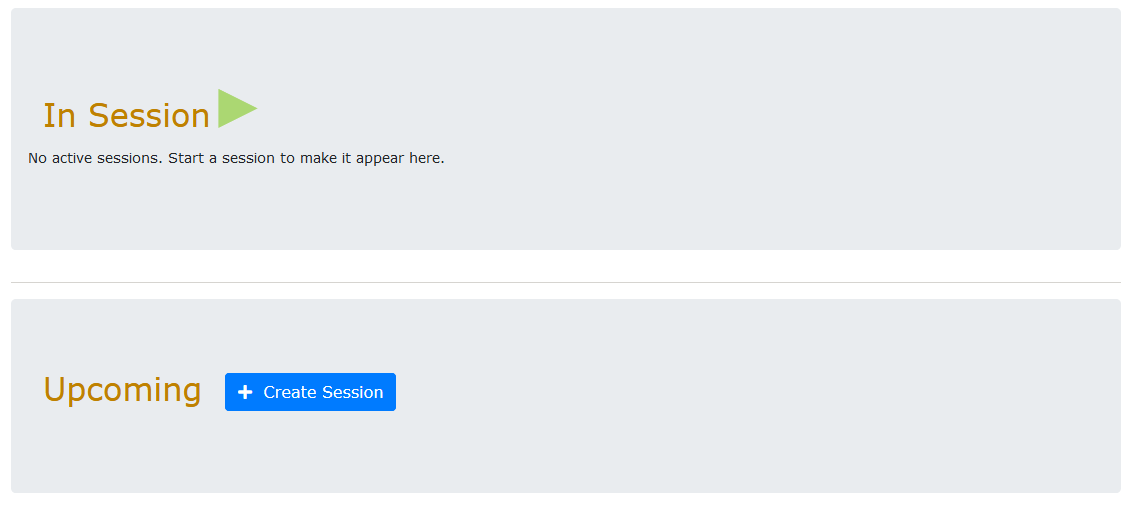
* A blank home page with no queue will be displayed, to check if the queues are working and navigate using the top right nav bar to get to the schedule page.



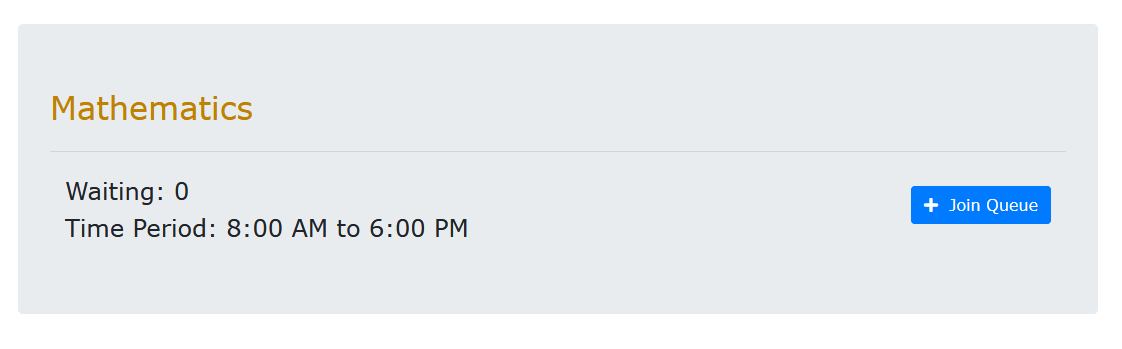
* Click on the edit symbol next to the “Schedule” title and click on the current time slot with your teacher’s name selected in the drop down



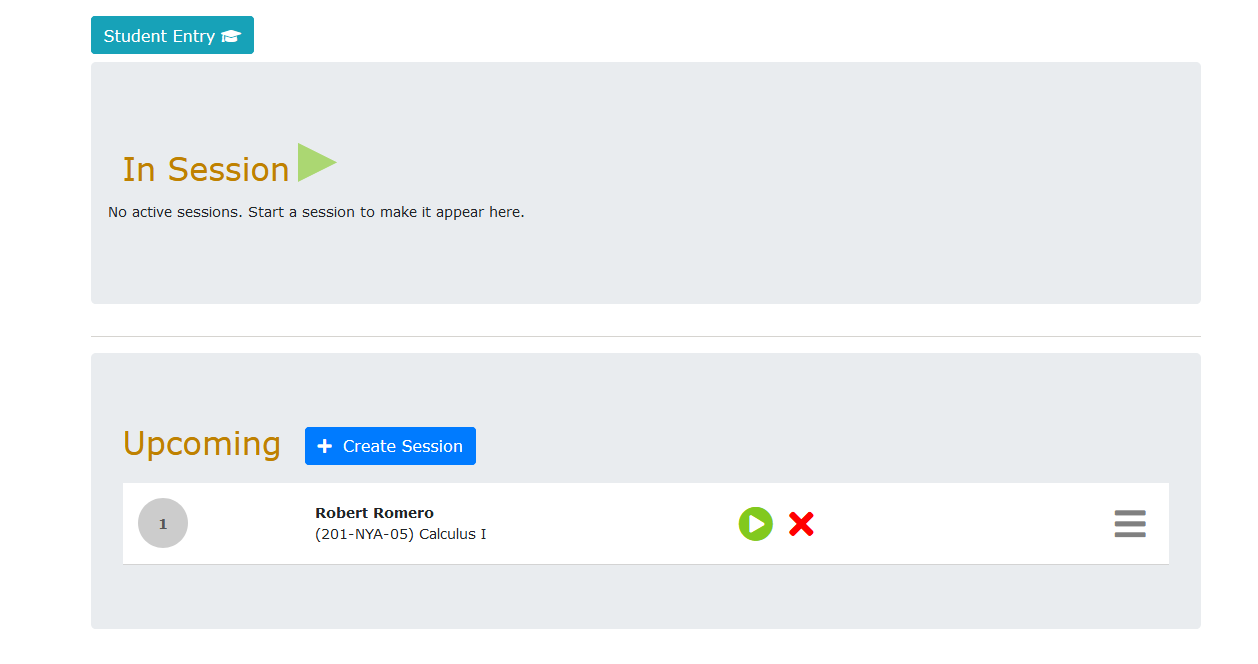
* Make sure that the teacher’s queue is created for students to join when navigating back home .



* Make sure that the queue appears in the “Student Entry” mode



* Lastly make sure after clicking the “Join queue” and entering a student’s id, the student appears in the teacher’s queue.



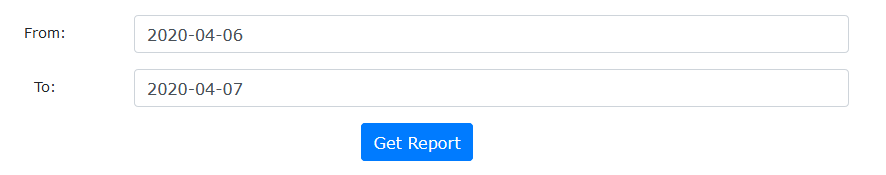
### End of the Day Checks

To check that the U-Q has worked successfully through the day please check the following steps:

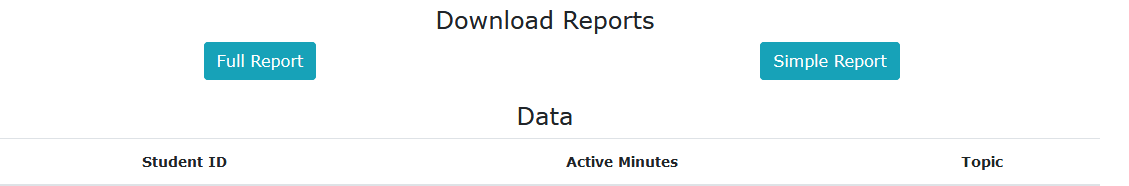
* If there were any sessions completed in the queue that day make sure the teachers who had completed sessions are able to log in.



* Then the teacher must click on “Report” and then enter the current date in the “From:” text box and the next day in the “To:” box.



* Then all of the sessions from today for that teacher should be displayed in the format below. ANd this signifies that the system has worked successfully at tracking the information.



### Ongoing Monitoring

There is no ongoing monitoring needed for the U-Q Queuing system. If a restart of the application is needed then refer to section 3.1.3 of this document.

### Reactive steps

* Midday or unscheduled (start/shutdown/restart) procedures.

Please refer to section 3.1.3 of this document for restarting and shutdown procedures.

* Further errors

Please refer to the escalation steps below if further unexpected errors occur and are not solved using the steps above.

### Escalation Steps

#### Escalation Order

Please escalate if required in the order mentioned below starting from top

|  |  |  |
| --- | --- | --- |
| Team | Name | Distribution list |
| Technical Support | N/A | techsupport@cegep-heritage.qc.ca |
| System Admin | Allan McDonald | amcdonald@cegep-heritage.qc.ca |
| Project manager | Richard Chan | rchan@cegep-heritage.qc.ca |
| Project Owner | Guy Beaulieu | gbeaulieu@cegep-heritage.qc.ca |

**Table 3-1 Service Escalation Contact**

#### Stake Holders Contact

Stake holders contact to notify an outage or any other issue (impending or occurred)

|  |  |  |
| --- | --- | --- |
| Team | Primary Distribution list | Name |
| Project Owner | gbeaulieu@cegep-heritage.qc.ca | Guy Beaulieu |
| Project Manager | rchan@cegep-heritage.qc.ca | Richard Chan |

**Table 3-2 Stake Holders Contact**

# Approvals

This document has been read and approved by the following people, responsible for its implementation. Approval is indicated by an email showing approval. Those approving below indicate that the contents of this document are correct and complete and agree to their implementation:

|  |  |  |
| --- | --- | --- |
| **Title** | **Name** | **Approval** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

History

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Version** | **Status** | **Date** | **Author** | **Reason for changes** |
|  |  |  |  |  |
|  |  |  |  |  |
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