



V 1.0.0 (Self-Hosted)
Last Updated: Feb 21th 2022



Introduction

This guide will provide a basic walkthrough of a self hosting setup of the butchery application using windows server with IIS 7+. Some additional modules will need to be installed IISNODE, and the REWRITE module, This allows node to run on IIS and the REWRITE module allows for IIS to rewrite the requested URL paths to the butchery application correctly (SPA APPLICATION require rewrite module). The basic config for these modules will be contained in the application package. This application also uses a Google Service account to POST / APPEND scores to excel sheets, so that the instructors can easily view students results. For this we will be creating a service account, an excel document and we will be adding the ID's to the applications environment variables.

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Requirements

- Windows server environment
- IIS 7+
- Google Account (Hosting online spreadsheets + use of Sheets API)
- Google Console Project with Sheets API Enabled (setup in guide)
- Project is downloaded and unzipped ready to host:
<https://previewseed.s3.us-east-2.amazonaws.com/next-iis.zip>

Installing Node + IIS Modules




You will **need to install these packages** for IIS to work with the application.

- Installing Node: <https://nodejs.org/en/download/>
 - Install the one according to you bitness, 64bit or 32bit

Downloads

Latest LTS Version: 16.14.0 (includes npm 8.3.1)

Download the Node.js source code or a pre-built installer for your platform, and start developing today.

LTS Recommended For Most Users	Current Latest Features	
 Windows Installer node-v16.14.0-x64.msi	 macOS Installer node-v16.14.0.pkg	 Source Code node-v16.14.0.tar.gz

Windows Installer (.msi)
Windows Binary (.zip)
macOS Installer (.pkg)
macOS Binary (.tar.gz)
Linux Binaries (x64)
Linux Binaries (ARM)
Source Code

32-bit	64-bit
32-bit	64-bit
64-bit / ARM64	
64-bit	ARM64
64-bit	
ARMv7	ARMv8
node-v16.14.0.tar.gz	

Installing URL Rewrite for IIS:

<https://www.iis.net/downloads/microsoft/url-rewrite>

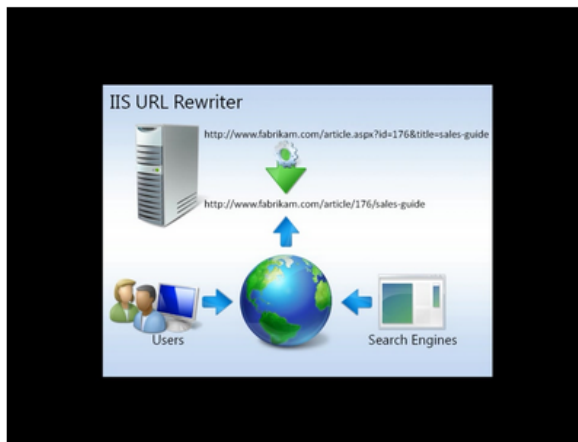
URL Rewrite

This is a [Microsoft Supported Download](#) | Works With: IIS 7, IIS 7.5, IIS 8, IIS 8.5, IIS 10

[Install this extension](#)

[or view additional downloads](#)

Overview



IIS URL Rewrite 2.1 enables Web administrators to create powerful rules to implement URLs that are easier for users to remember and easier for search engines to find. By using rule templates, rewrite maps, .NET providers, and other functionality integrated into IIS Manager, Web administrators can easily set up rules to define URL rewriting behavior based on HTTP headers, HTTP response or request headers, IIS server variables, and even complex programmatic rules. In addition, Web administrators can perform redirects, send custom responses, or stop HTTP requests based on the logic expressed in the rewrite rules.

- **Installing IIS Node:** <https://github.com/Azure/iisnode>

Scroll down on the gitpage till you see install instructions, click x86 or x64 for the installer. (Run the installer)

Prerequisites for using

- Windows Vista, Windows 7, Windows 8, Windows Server 2008, or Windows Server 2012
- IIS 7.x with IIS Management Tools and ASP.NET
- WebSocket functionality requires IIS 8.x on Windows 8 or Windows Server 2012
- [URL rewrite module for IIS](#)
- [Latest node.js build for Windows](#)

Installing for IIS 7.x/8.x

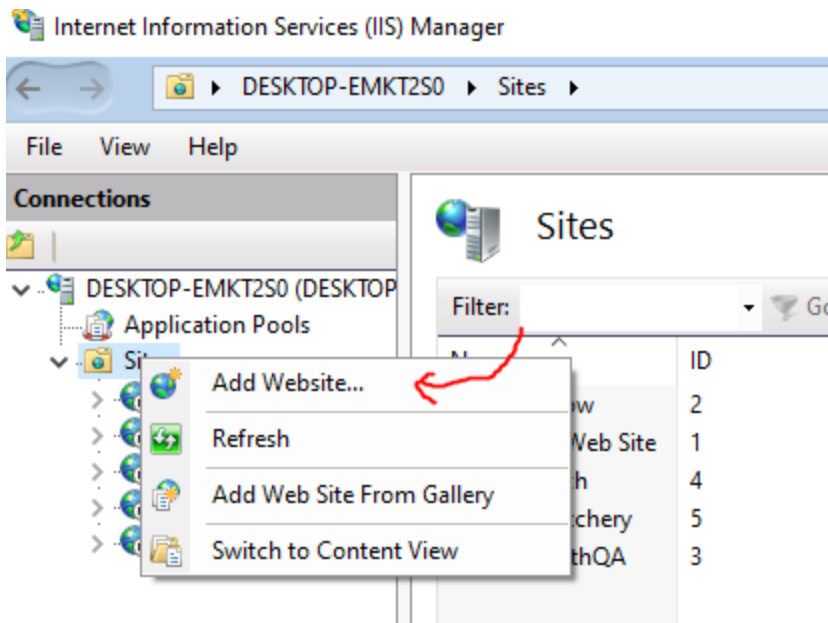
- Install iisnode for IIS 7.x/8.x: [x86](#) or [x64](#) - choose bitness matching your system
- To set up samples, from the administrative command prompt call `%programfiles%\iisnode\setupsamples.bat`
- Go to `http://localhost/node`

Create Site in IIS

This section assumes you have an IIS setup for your network and know what settings you need for your specific network. This section will just cover selecting the application in the ADD SITE modal, and showing the application started.

Opening the Add Site:

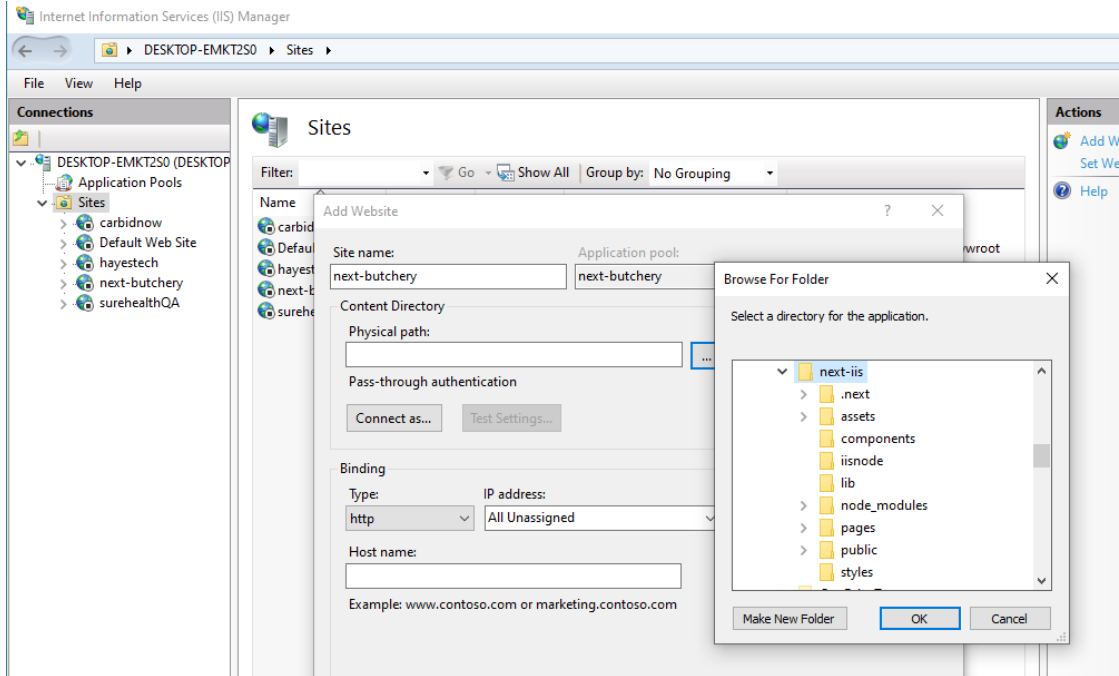
Right click on sites in the IIS panel.



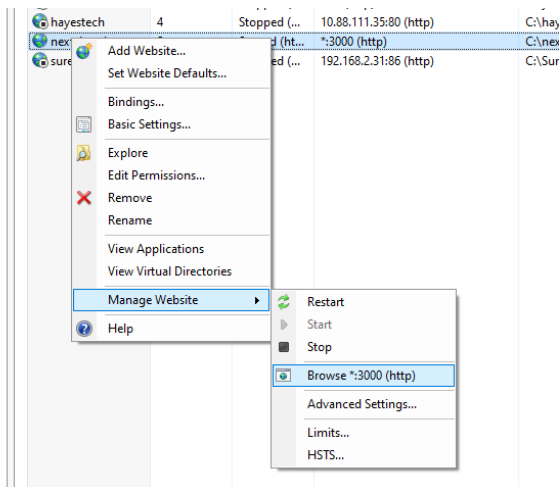
This will bring up the add site prompt, Where you can insert the values you will need for your network. In the case of the demo, I will be running locally on port 3000.

Selecting the project:

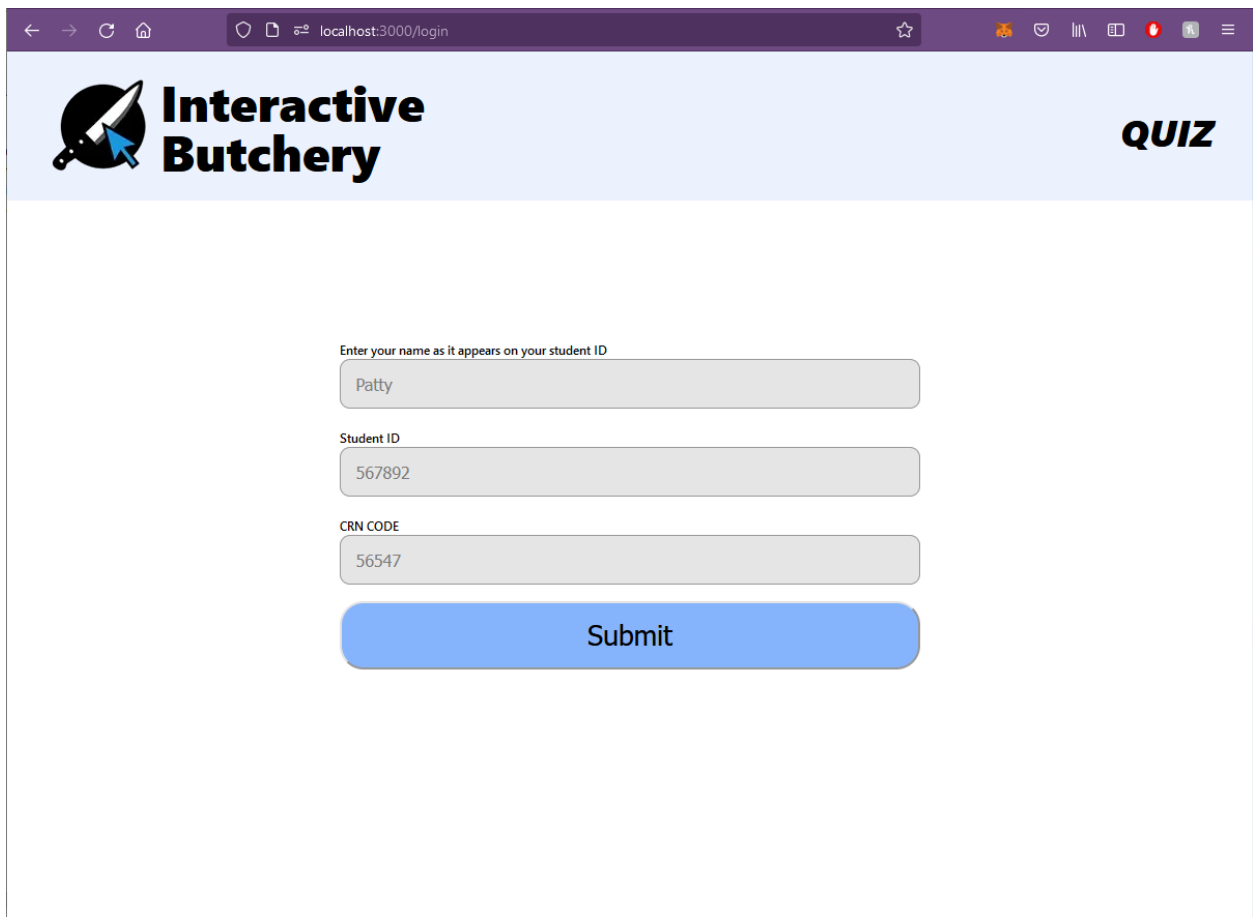
On the physical path of the add site modal, select the root of the project, In this case next-iis.



After completing this add site modal, the website should be started on the port / network you selected. My case, localhost:3000, You can browse to the site by right clicking the site you created and selecting Browse



You should be presented with the login page.



Interactive Butchery QUIZ

Enter your name as it appears on your student ID
Patty

Student ID
567892

CRN CODE
56547

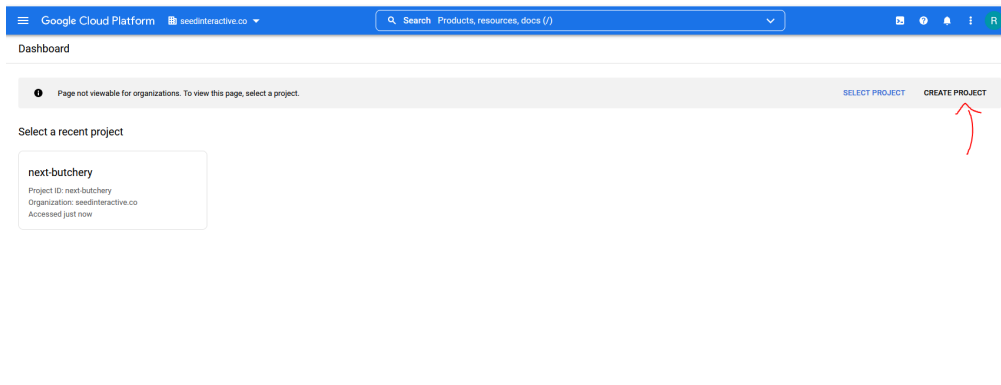
Submit

Setup Google Service Account and Sheets

The butchery application reports logins and quiz results to 2 Google Sheets documents hosted online. In this section we will be setting up the google service account, attaching the service account credentials to the project, Copying the google sheet format to our account and adding those generated Ids to the project as well.

Creating the Service Account

Navigate to <https://console.cloud.google.com> with the account you will be using to setup the service account and share the hosted documents with. You should be prompted to create a new project, if not, create a new project. (you may have a different view depending on your account level, just need to create a new project, Here is my dashboard view for organization account)



Project name *
My Project 51313 ?

Project ID: axiomatic-genre-342014. It cannot be changed later. [EDIT](#)

Organization *
seedinteractive.co ?

Select an organization to attach it to a project. This selection can't be changed later.

Location *
seedinteractive.co [BROWSE](#)

Parent organization or folder

[CREATE](#) [CANCEL](#)

Name the project however you prefer and press create, You should be presented with a dashboard,

Google Cloud Platform test-next-doc

Search Products, resources, docs (/)

BOARD ACTIVITY RECOMMENDATIONS

Project info

- Project name: test-next-doc
- Project number: 239554472665
- Project ID: test-next-doc

[ADD PEOPLE TO THIS PROJECT](#)

[Go to project settings](#)

Resources

- BigQuery**: Data warehouse/analytics
- SQL**: Managed MySQL, PostgreSQL, SQL Server
- Compute Engine**: VMs, GPUs, TPUs, Disks
- Storage**: Multi-class multi-region object storage
- Cloud Functions**: Event-driven serverless functions
- App Engine**: Managed app platform

Trace

No trace data from the past 7 days

[Get started with Trace](#)

API APIs

Requests (requests/sec)

No data is available for the selected time frame.

[Go to APIs overview](#)

Google Cloud Platform status

Google Cloud SQL

Global: Cloud SQL PostgreSQL password validation errors with high connection load.

Began at 2022-02-15 (09:17:47)

All times are US/Pacific

Data provided by status.cloud.google.com

[Go to Cloud status dashboard](#)

Monitoring

- [Create my dashboard](#)
- [Set up alerting policies](#)
- [Create uptime checks](#)
- [View all dashboards](#)

[Go to Monitoring](#)

API Error Reporting

No sign of any errors. Have you set up Error Reporting?

[Learn how to set up Error Reporting](#)

News

Introducing Google Cloud's Tomcat migration tooling

3 days ago

Select, Go to Project Settings -> Service accounts

Project info

Project name
test-next-doc

Project number
239554472665

Project ID
test-next-doc

[ADD PEOPLE TO THIS PROJECT](#)

[→ Go to project settings](#)

Resources

- BigQuery**
Data warehouse/analytics
- SQL**
Managed MySQL, PostgreSQL, SQL Server
- Compute Engine**
VMs, GPUs, TPUs, Disks
- Storage**
Multi-class multi-region object storage
- Cloud Functions**
Event-driven serverless functions

API APIs

Requests (requests/sec)

▲ No data is available

8:30 8:45

[→ Go to APIs overview](#)

- [+ IAM](#)
- [Identity & Organization](#)
- [Policy Troubleshooter](#)
- [Policy Analyzer](#)
- [Organization Policies](#)
- [Service Accounts](#)
- [Workload Identity Federation](#)
- [Labels](#)
- [Tags](#)
- [Settings](#)
- [Privacy & Security](#)
- [Identity-Aware Proxy](#)
- [Roles](#)

Service accounts for project "test-next-doc"

A service account represents a Google Cloud service identity, such as code
 Organization policies can be used to secure service accounts and block ris

Filter Enter property name or value

<input type="checkbox"/>	Email	Status	Name ↑	Descriptio
No rows to display				

Select Create Service account (top bar), Here is what I filled in for this example

Create service account

1 Service account details

Service account name *

test service account

Display name for this service account

Service account ID *

test-service-account

@test-next-doc.iam.gserviceaccount.com



Service account description

Testing service account for example document

Describe what this service account will do

CREATE AND CONTINUE

2 Grant this service account access to project (optional)

3 Grant users access to this service account (optional)

DONE

CANCEL

Click Done,

Now, we will need to get the service key for our newly created service account,

On the newly created service account, Click **Manage Details -> Keys**

Organization policies can be used to secure service accounts and block risky service account features, such as automatic IAM grants, key creation/upload, or the creation of service accounts entirely. [Learn more about service account organization policies.](#)

Filter	Enter property name or value								
<input type="checkbox"/>	Email	Status	Name ↑	Description	Key ID	Key creation date	OAuth 2 Client ID	Actions	
<input type="checkbox"/>	test-service-account@test-next-doc.iam.gserviceaccount.com	✔	test service account	Testing service account for example document	No keys		116065923854482804462		<ul style="list-style-type: none">Manage details ←Manage permissionsManage keysView metricsView logsDisableDelete

On the keys screen we're going to create key of JSON type

Key expiration date

Create private key for "test service account"

Downloads a file that contains the private key. Store the file securely because this key can't be recovered if lost.

Key type

JSON
Recommended

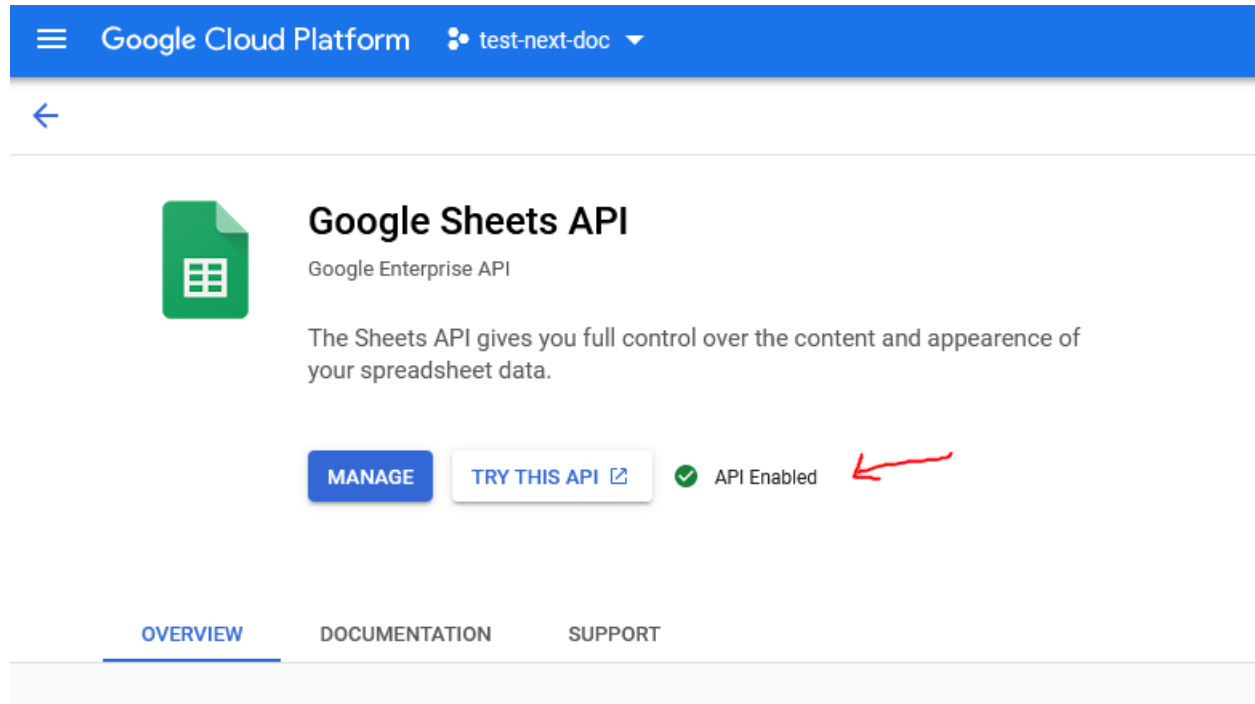
P12
For backward compatibility with code using the P12 format

CANCEL CREATE

This will create a JSON file and download it to your computer, Keep this for later as it has the private key and email of this service account, We will need to input it into the project environment variables.

Lastly enable sheets API on the project you created

<https://console.developers.google.com/apis/library/sheets.googleapis.com>



Copying Login & Results Sheet

This section will have you copy 2 template sheets to your google drive with your google account, These sheets are the login tracker sheet and the quiz results. Once copied we will take the generated ID and add them to the project's environment variables.

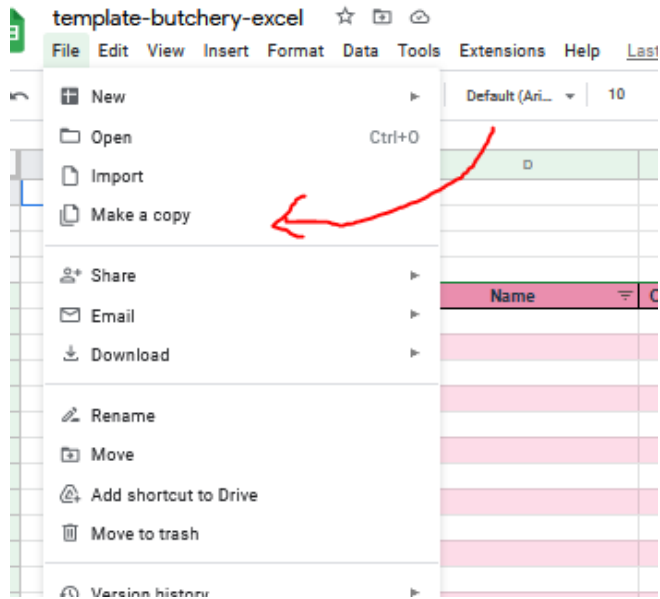
Navigate to the result sheet and **File -> Make a Copy**

RESULT SHEET

https://docs.google.com/spreadsheets/d/1BEvpO5J6H6vDXG1E_EH8fYfJsqAMZVVJRSHdE3Mp1o/edit?usp=sharing

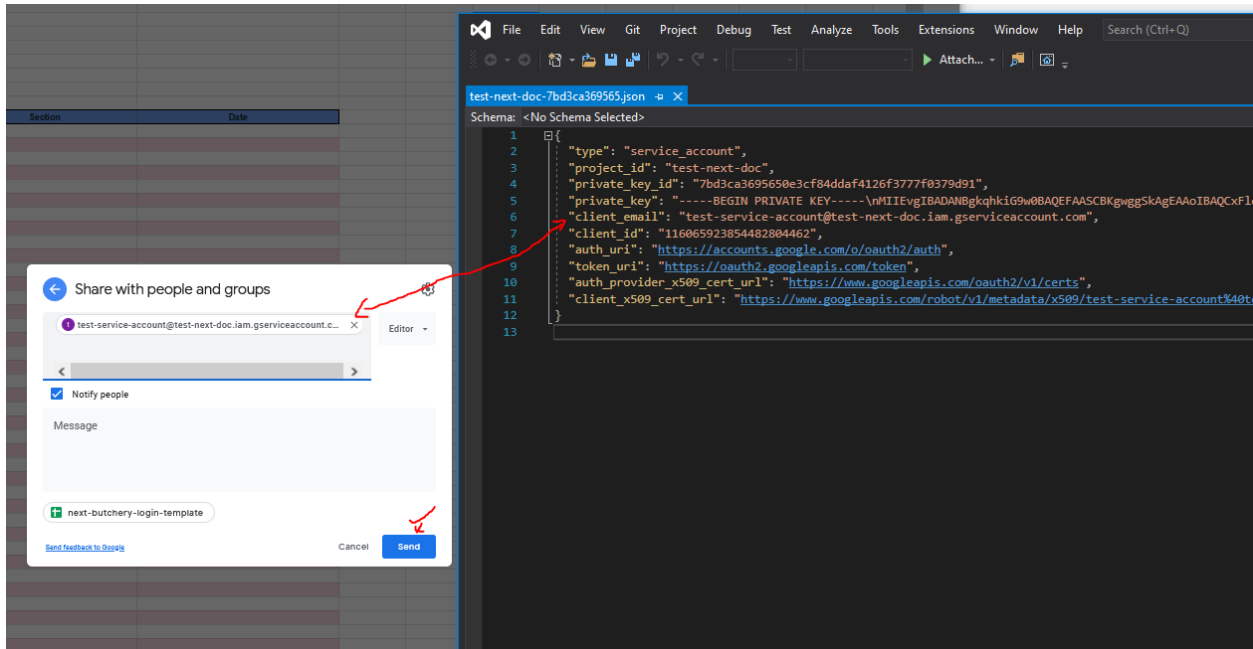
Login Sheet

https://docs.google.com/spreadsheets/d/1Z3auRSpUXhxeQx_6a73uSzzrAHZtTTaTV6ou9S8HRFQ/edit?usp=sharing



This should copy the spreadsheet to your account,

Once the files are in your account you want to share access with the service account you created, Click on the share button and paste in the email you see within the JSON key you downloaded earlier.



Copy the URL from the web address of the new copied spreadsheet and take the ID from the center of that URL,

Example case: (ID is highlighted)

https://docs.google.com/spreadsheets/d/1BEvpO5J6H6vDXG1E_EH8fYfJsqaMZVVJRSHdE3Mp1o/edit#gid=0

Copy these ID to a file in the project called .env.local

.next	2022-02-21 8:48 AM
assets	2022-02-20 8:05 AM
components	2022-02-20 8:05 AM
iisnode	2022-02-21 8:45 AM
lib	2022-02-20 8:05 AM
node_modules	2022-02-21 8:13 AM
pages	2022-02-20 8:05 AM
public	2022-02-20 8:06 AM
styles	2022-02-20 8:06 AM
.env.local	2022-02-21 8:45 AM
.eslintrc.json	1985-10-26 4:15 AM
.gitattributes	2021-12-22 3:20 PM
.gitignore	1985-10-26 4:15 AM
next.config.js	2021-12-16 4:17 PM
next-env.d.ts	2021-12-22 3:20 PM
package.json	2022-02-21 8:12 AM
package-lock.json	2022-02-21 8:13 AM
README.md	1985-10-26 4:15 AM
server.js	2022-02-20 6:35 PM
tsconfig.json	2021-12-22 3:20 PM
web.config	2022-02-20 6:40 PM

```
.env.local - Notepad
File Edit Format View Help
GOOGLE_SERVICE_PKEY="-----BEGIN PRIVATE KEY-----\nMIIEvGIBADANBgkqhkiG9w0BAQEFAASCBAgEAAoIB,
ED7LIzWtyFXIJS\nb1HU10cozjd0QAdCrCzVpmvFj4/wv80ZJUX8e6QbijCxjioMU1/0kfipku7+GhEf\n2jx6xko+d3smI54XI
GOOGLE_SERVICE_EMAIL=test-service-account@test-next-doc.iam.gserviceaccount.com
GOOGLE_LOGIN_SHEET=1Z3auRSpUXhxeQx_6a73uSzzrAHZtTTaTV6ou9S8HRFQ
GOOGLE_COMPLETE_SHEET=1BEvp05J6H6vDXG1E_EH8fYfJsqAMZVVJRSHdE3Mp1o
SECRET_COOKIE_PASSWORD=GjB7TFTxBdxv6vYhZrHAQABAoGAX58GJBAMMERAQABAoGAX58GJHTSpfmr0ubZ6m
```

GOOGLE COMPLETE SHEET= Results Sheet ID

GOOGLE LOGIN SHEET = Login Sheet ID

MAKE SURE TO DO THIS FOR BOTH SHEETS

KEEP THIS OPEN FOR THE NEXT SECTION

Adding Service Account Key to the project.

Open the JSON key saved to your computer earlier when creating the service keys for Service accounts,

Mine looks like this:

```
test-next-doc-7bd3ca369565.json  X
Schema: <No Schema Selected>
1  {
2    "type": "service_account",
3    "project_id": "test-next-doc",
4    "private_key_id": "7bd3ca36956550e3cf84ddaf4126f3777f0379d91",
5    "private_key": "-----BEGIN PRIVATE KEY-----\nMIIIEvgIBADANBgkqhkiG9w0BAQEFAASCBAkwggSkAgEAAoIBAQCxFlq8PMvEsKyA\
6    "client_email": "test-service-account@test-next-doc.iam.gserviceaccount.com",
7    "client_id": "110655023854482804462",
8    "auth_uri": "https://accounts.google.com/o/oauth2/auth",
9    "token_uri": "https://oauth2.googleapis.com/token",
10   "auth_provider_x509_cert_url": "https://www.googleapis.com/oauth2/v1/certs",
11   "client_x509_cert_url": "https://www.googleapis.com/robot/v1/metadata/x509/test-service-account%40test-next-do
12 }
13
```

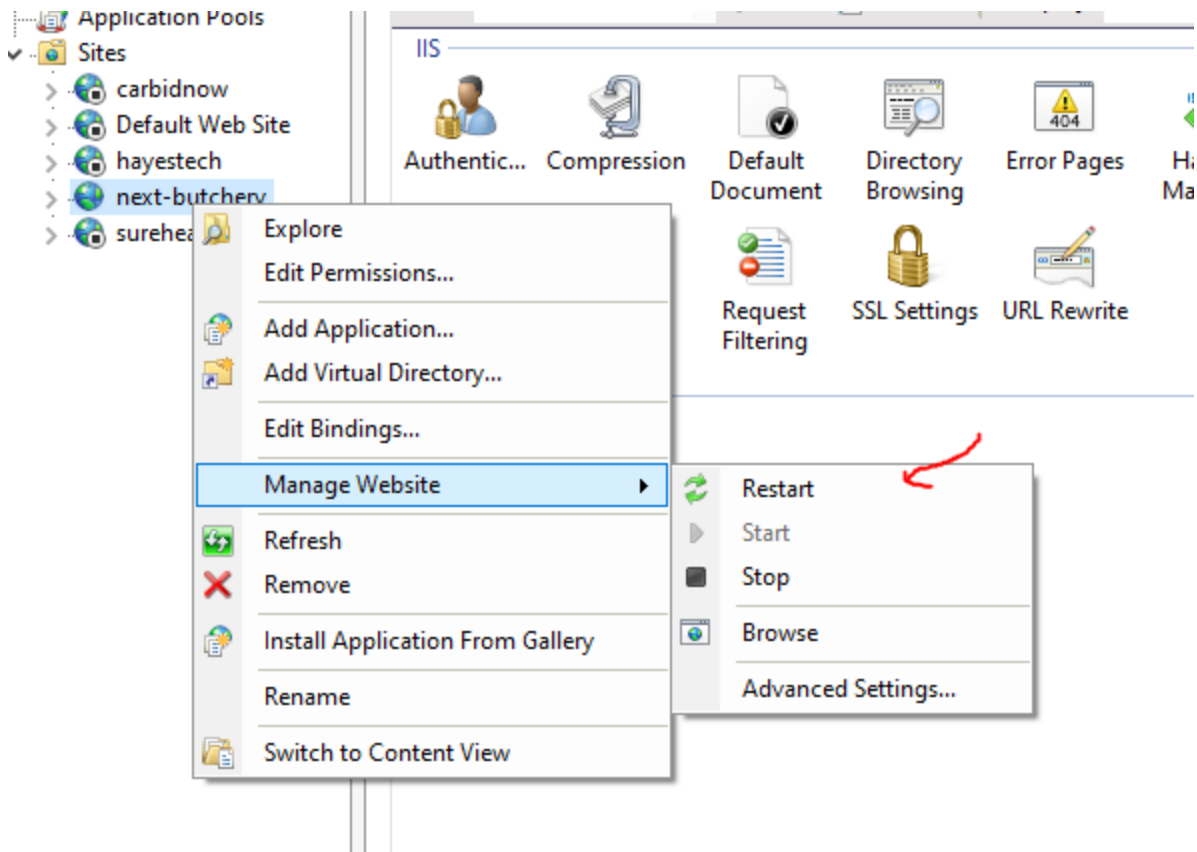
Copy the Private key & Email into the **.env.local** in this format

.next	2022-02-21 8:48 AM
assets	2022-02-20 8:05 AM
components	2022-02-20 8:05 AM
iisnode	2022-02-21 8:45 AM
lib	2022-02-20 8:05 AM
node_modules	2022-02-21 8:13 AM
pages	2022-02-20 8:05 AM
public	2022-02-20 8:06 AM
styles	2022-02-20 8:06 AM
.env.local	2022-02-21 8:45 AM
.eslintrc.json	1985-10-26 4:15 AM
.gitattributes	2021-12-22 3:20 PM
.gitignore	1985-10-26 4:15 AM
next.config.js	2021-12-16 4:17 PM
next-env.d.ts	2021-12-22 3:20 PM
package.json	2022-02-21 8:12 AM
package-lock.json	2022-02-21 8:13 AM
README.md	1985-10-26 4:15 AM
server.js	2022-02-20 6:35 PM
tsconfig.json	2021-12-22 3:20 PM
web.config	2022-02-20 6:40 PM

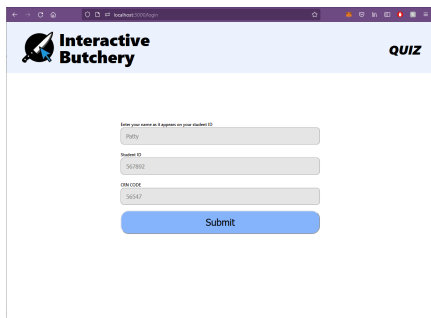
```
env.local
GOOGLE_SERVICE_PKEY="-----BEGIN PRIVATE KEY-----\nMIIEvglIBADANBgkqhkiG9w0BAQEFAASCbKggwggSkAgEAAoIBAQCxFlo
GOOGLE_SERVICE_EMAIL=test-service-account@test-next-doc.iam.gserviceaccount.com
GOOGLE_LOGIN_SHEET=1Z3auRSpUXhxeQx_6a73uSzzrAHZtTTaTV6ou9S8HRFQ
GOOGLE_COMPLETE_SHEET=1BEvp05J6H6vDXG1E_EH8fYfJsqAMZVJR5SHdE3Mp1o
SECRET_COOKIE_PASSWORD=GjB7TFTxBdxv6vYhZrHAQABAoGAX58GJBAMMERAQABAoGAX58GJHTSpfmr0ubZ6m
```

NOTE: KEY keeps the quotes (“) and email does not

Save the new environment variables (file->save) and restart the server using IIS.



Upon restart you project should be viewable and when you login the info should be viewable in the login sheet + results on the login spreadsheets you created.



Testing

Here are some training module paths you can test, to go to the quiz you will have to login but the button is bottom center

`/3DApp/template.html?meat=Beef`

`/3DApp/Chicken/splashChicken.html`

Also check that your logging the results of the Login page and Results page on the Spreadsheets ID you added to the .env.local file - If not ensure you restarted the server and check if it logged them on the location you copied it from