

**SPAnalytics**  
**Admin Manual & ANSI Documentation**

**Miami University C.E.C. & Miami University Men's Hockey Team Collaboration**  
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## **Admin Manual**

### **Introduction & Purpose**

*Introduction and purpose of the application, taken from Jackson's description combined with the realities of the finalized version. Should be simple enough for non-tech people to understand.*

### **Feature Descriptions**

*List of features with functionality, inputs/outputs, screenshots. Should be simple and visual enough for non-tech people to understand.*

### **Database Considerations & Upkeep**

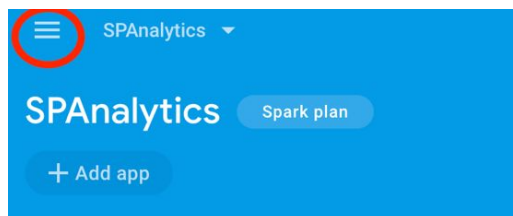
#### **Getting to Google Firestore**

Database link:

<https://console.firebase.google.com/u/0/project/discovery-8d956/overview>

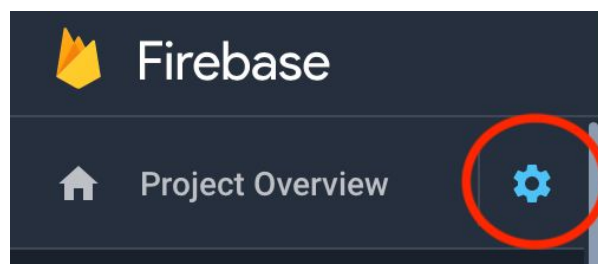
Alternatively, click: <https://console.firebase.google.com/u/0/>  
And go to SPAnalytics

Click on the 3 bars at the top left



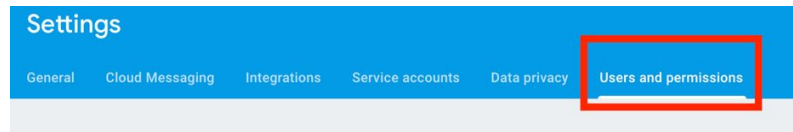
#### **Adding New Members to the Database**

Click on the little gear at the top.



Gear -> Users and Permissions

On the right there is a blue tab at the top. Click users and permissions



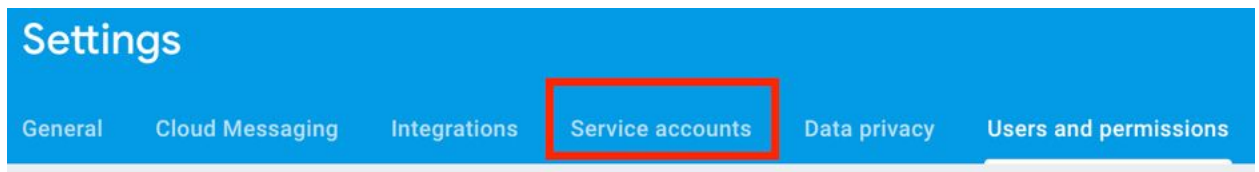
This is a list of all the people that have access to this database. In order to add a new person, one needs to Add Member by clicking the button. Owners and editors have read and write access to the database, whereas editors only have read access.

A screenshot of a 'Add member' dialog box. At the top, there's a search bar labeled 'Search members' and a blue 'Add member' button. Below this, there's a table with two columns: 'Member' and 'Role(s)'. The 'Member' column has an upward arrow icon. Below the table, there's a form with two input fields: 'Email address(es)' and 'Role(s)'. The 'Email address(es)' field has a red error message below it that says 'Enter at least one email address'. The 'Role(s)' field is a dropdown menu with a red error message below it that says 'Specify at least one role'. At the bottom right of the form, there are 'Cancel' and 'Add member' buttons.

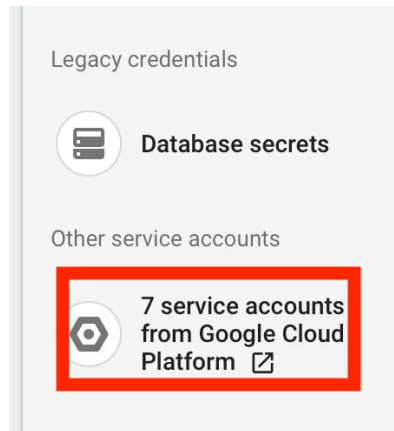
### **Creating a Private Key for Players**

Private key needs to be created for each player accessing the database. This is because when a player is deleted, their key needs to be deleted as well by the administrator so that the player no longer has access to the database.

You can create a private key that has only view permissions to a player.



Click on the tab under service accounts



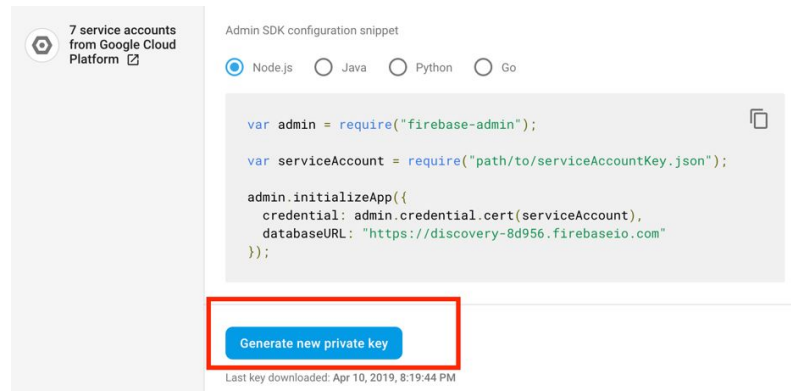
This is the Google Cloud platform which controls the keys for administrators and for players. There exists a service account for players which creates a key that only grants read access to the database. For players, those who have a service key that is associated with "players-817@discovery-8d956.iam.gserviceaccount.com" have only view access to the database. Administrators and coaches would have a key from "firebase-adminsdk-wib15@discovery-8d956.iam.gserviceaccount.com" To create a key, click the three dots on the right.

Service accounts		<a href="#">+ CREATE SERVICE ACCOUNT</a>	<a href="#">DELETE</a>
<input type="checkbox"/>	<a href="#">firebase-adminsdk-ox6ce@discovery-8d956.iam.gserviceaccount.com</a>	firebase-adminsdk	<div> <div>⋮</div> <div> Edit Delete Create key </div> </div>
<input type="checkbox"/>	<a href="#">firebase-adminsdk-wib15@discovery-8d956.iam.gserviceaccount.com</a>	firebase-adminsdk	<div> <div>⋮</div> <div> Edit Delete Create key </div> </div>
<input checked="" type="checkbox"/>	<a href="#">players-817@discovery-8d956.iam.gserviceaccount.com</a>	players	<div> <div>⋮</div> <div> Edit Delete Create key </div> </div>

As an administrator, it is possible to create one key and pass it to all players. However, a player that drops would still have view access to the database so long as that key is active.

**It is recommended** that each player is assigned to one key and when a player leaves, their key can be deleted. This can be done by clicking on the

service account name scrolling down to "Keys" and clicking the trash can next to each key that needs to be deleted.



### **Creating a Private Key for Admins**

Follow the steps for creating a private key for players but generating keys for "firebase-adminsdk-wib15@discovery-8d956.iam.gserviceaccount.com". Alternatively, start from the tab called Service Accounts and click on Generate new Private Key.

The path to the key is the absolute path. For example:

Mac:

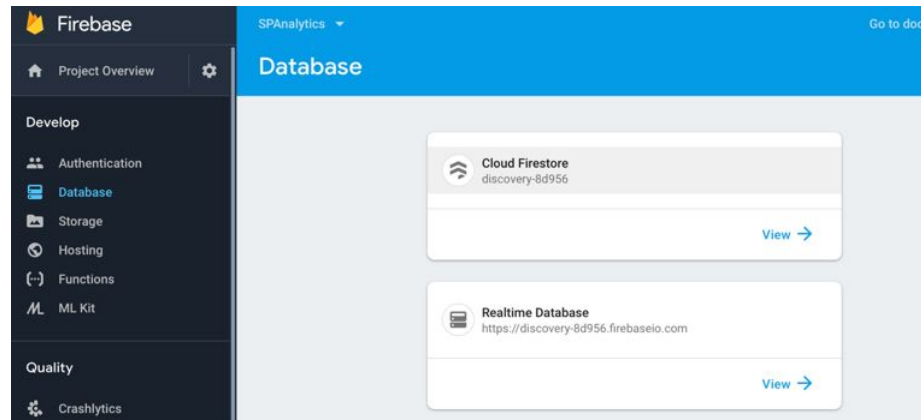
/Users/Valeria/capstoneProject/key.json

PC:

C:/Users/Valeria/capstoneProject/key.json

### **Seeing Database Contents**

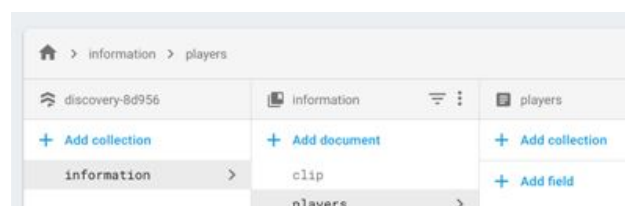
Back on the left hand side of the main menu, click Database. Then choose the Cloud Firestore.



The contents of the database are presented as fields or collections. A field is essentially a key/value pair where a key is a unique field and a value can either be a string, number, boolean value, map, array, etc). Players are stored as key-value pairs where a value is a map of different statistics including game and bio.

### Adding Player Contents

To create a new field in the player document, click on the "+ Add field", specify a unique key (player jersey No) followed by a value (map).



For each player or goalie the stats are different. Modify the stats by clicking on the field that needs to be modified. Team stats can be modified the same way by clicking on the team document and modifying them.

### **Future Features List**

*List of features that we couldn't add due to constraints or conceptualized too late in the development life cycle. This is a place to store these ideas for potential future development.*

- Heat map

- Embedded video
- Generating excel sheet from database
- Easier exporting keys to players
- Allowing players to view video clips
- Adding specific player stats to the database
- Editing stats (player, team) in the UI

## **Troubleshooting**

*Short list of actions that can be taken if errors occur. Maybe list of google search terms, links to technology repositories/descriptions, etc.*

- If error from downloading the zip or .jar file, redownload it
- Otherwise if it a specific exception, then contact the current developer(s)

## **ANSI Documentation**

### **Functional Definition**

The Model View Controller (MVC) design pattern separates the application into the three components of the model, the view, and the controller. The model includes all of the applications data but does not include the logic behind presenting the data to the user. The view component includes the models data to the user. It includes all of the user interface scenes. The controller is the interface between the model and the view components as it listens to the events from the view component and then executes them.

### **Programming Information**

In the SPAnalytics/src folder there is a view and application folder. The view folder contains all of the fxml files for each scene. The application folder includes our controller class which contains all of our methods that interact between the interface the model and view classes. The MemberModel and GoalieModel classes are the JavaFX objects used to build the player and goalie stats table. All of the other classes in the application folder are all used to build objects in the database.

To run the jar file: go to path to file  
 cd filepath  
 java -jar SPAnalytics.jar

To build the project as a jar file:

1. Install maven (<https://maven.apache.org/install.html>)



2. Open a command window in your project directory (where the pom.xml file is located)
3. Run mvn jfx:jar
4. If this fails, you may need to create an assembly using the Maven assembly plugin  
(<http://maven.apache.org/plugins/maven-assembly-plugin/>)

## **Glossary**

### **Sources**

Developer Google Drive link:

<https://drive.google.com/open?id=14bugF4sNf1cTGqs5D5MTEBJCE317PD1aZ0EQ6PCfIXg>

Github link:

<https://github.com/matthenm/SPAnalytics>

Google Database firestore link:

<https://console.firebase.google.com/u/0/project/discovery-8d956/overview>