

Reference Manual

Password Manager

Welcome, SampleUser1!

Generate Password

 6&l22octH*XtGlx@

Welcome
SampleUser1!

Create Entry

Edit Entry

Category: Other

Name	Website	Username	Password
Discord	https://discord.com	discJockey1500	Not_A_Real_Password
ItsLearning - VIA UC	https://via.itslearning.com/	123456	Not_A_Real_Password
GitHub	https://https://github.com/	Not_A_Real_Id	Not_A_Real_Password
Danske Bank	https://shared-logon.danskebank.com/logon/default/index.html?clientId=eBanking-DK#MitID	Not_A_Real_Id	Not_A_Real_Password
Wiseflow	https://europe.wiseflow.net/login	123456	Not_A_Real_Password

Password Management System

Version 20/12-2024

Introduction

This reference manual is written for you, the experienced user, who already has knowledge about the password manager. This manual features step-by-step explanations supplemented with screenshots from the system, allowing you to easily follow the proper steps and procedures. You will find the table of contents below.

Compatibility

This reference manual is written for the pre-release version of the Password Manager System. Specifically, the version submitted for review as part of the 3. Semester software project at VIA University College Horsens. Using this manual with any future system versions may cause actual steps to be different compared to the ones laid out in this manual.

Table of Contents

Introduction	2
Compatibility	2
1. Creating a new User Account	4
2. Logging in with a User Account	5
3. Create a new Login Entry	7
4. View existing Login Entries	9
5. Editing existing Login Entries	10
6. Deleting existing Login Entries	13
7. Generate a strong Password	16
8. Exceptions.....	18
8.1. Frequent exceptions while logging in, or creating an account.....	18
8.1.1. Error creating user: MasterUser already exists	18
8.1.2. Error creating user: Encrypted Password must be at least 12 characters	18
8.1.3. Error creating user: MasterUsername cannot be empty	19
8.1.4. Error creating user: Encrypted Password cannot be empty	19
8.1.5. Error: MasterUser not found in DB	20
8.1.6. Error: MasterUser found, but invalid password provided	20
8.2. Frequent Generic Exceptions	21
8.2.1. Error: Error cannot reach dbServer: io exception.....	21
8.2.2. SetWebApiServerUrlAsync failed: Der kunne ikke oprettes forbindelse, fordi destinationscomputeren aktivt nægtede det (localhost:8080)	22
8.2.3. Error: Der kunne ikke oprettes forbindelse, fordi destinationscomputeren aktivt nægtede det (localhost:8081)	23
8.3. Frequent exceptions while managing Login Entries.....	24
8.3.1. All fields must be filled before creating an entry	24

1. Creating a new User Account

Purpose:

This chapter explains how to create a new user account that provides access to the other features of the Password Manager.

Pre-conditions:

The Password Manager Software must be installed and servers running. Browser must be opened to the address: <https://localhost:7062>.

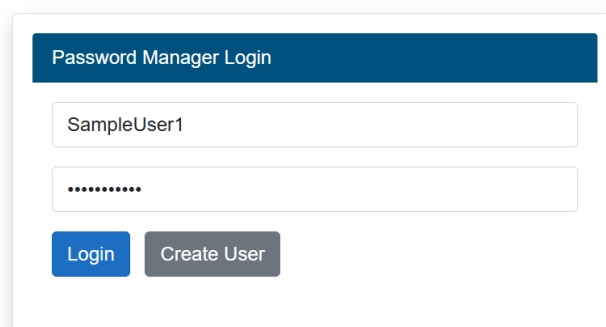
Steps to take:

Below is a short summation of the steps required. Please navigate to the following pages for a detailed walk-through for each step.

1. Enter desired *Username* and *Password*.
2. Select "Create User"

Step 1: Enter desired Username and Password

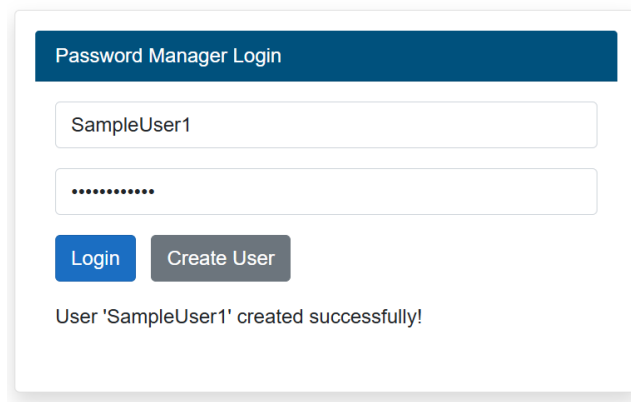
Enter a username and enter a corresponding password for your desired account. Passwords must be at least 12 characters long.

A screenshot of a web form titled "Password Manager Login". The form has a dark blue header bar with the title in white. Below the header, there are two input fields: the first contains the text "SampleUser1", and the second contains a series of dots representing a masked password. At the bottom of the form, there are two buttons: a blue "Login" button and a grey "Create User" button.

Note: Above 'SampleUser1' has been entered as the Username.

Step 2: Select “Create User”

Click on the Create User button, to create the user account.



The screenshot shows a web interface titled "Password Manager Login". It features two input fields: the first contains the text "SampleUser1", and the second contains a series of dots representing a password. Below these fields are two buttons: a blue "Login" button and a grey "Create User" button. The "Create User" button is highlighted with a dark border, indicating it is the active element. Below the buttons, a message states: "User 'SampleUser1' created successfully!".

2. Logging in with a User Account

Purpose:

This chapter explains how to login with an existing user account to gain access to the other features of the Password Manager.

Pre-conditions:

The Password Manager Software must be installed and servers running. Browser must be opened to the address: <https://localhost:7062>. User must already have created a user account.

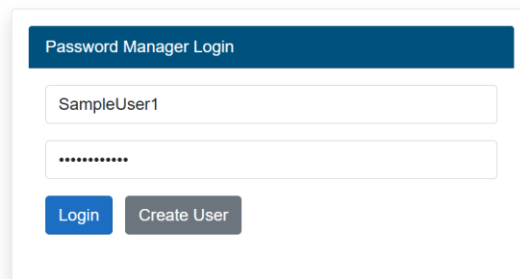
Steps to take:

Below is a short summation of the steps required. Please navigate to the following pages for a detailed walk-through for each step.

1. Enter your *Username* and *Password*.
2. Select “Login”

Step 1: Enter your Username and Password

Enter your username and enter the corresponding password for your desired account.



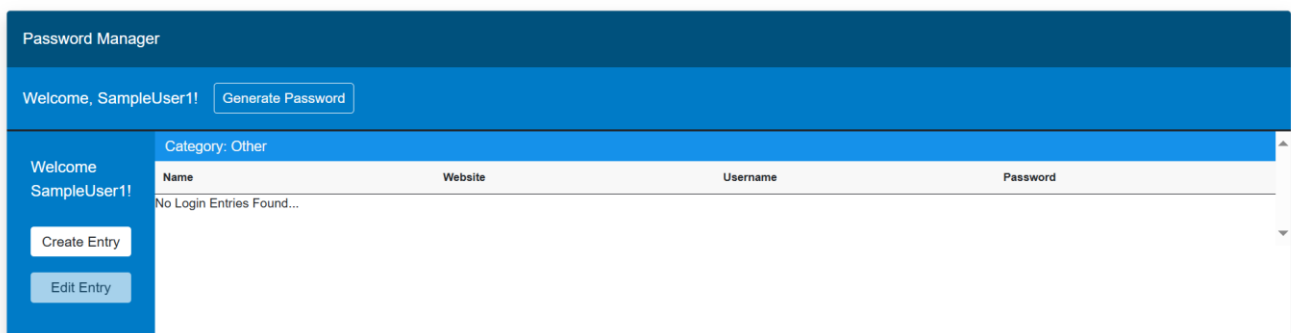
The image shows a login form titled "Password Manager Login". It has two input fields: the first contains "SampleUser1" and the second contains a masked password "*****". Below the fields are two buttons: a blue "Login" button and a grey "Create User" button.

Note: Above 'SampleUser1' has been entered as the Username.

Step 2: Select "Login"

Click on the Login button, to log in.

When successfully logged in, the UI shown below will appear.



The image shows the Password Manager dashboard after a successful login. The top header is "Password Manager". Below it, a blue bar says "Welcome, SampleUser1!" with a "Generate Password" button. The main content area has a sidebar on the left with "Welcome SampleUser1!", "Create Entry", and "Edit Entry" buttons. The main area shows a table with columns "Name", "Website", "Username", and "Password". The table is currently empty, displaying "No Login Entries Found...".

Name	Website	Username	Password
No Login Entries Found...			

3. Create a new Login Entry

Purpose:

This chapter explains how to Create a new Login Entry. A Login Entry is the basic term used to reference the login information associated with an external application, webpage, system, etc. This is the primary data type handled by the Password Manager Software, and its main purpose.

Pre-conditions:

The Password Manager Software must be installed and servers running. Browser must be opened to the address: <https://localhost:7062>. User must already have logged in with a user account.

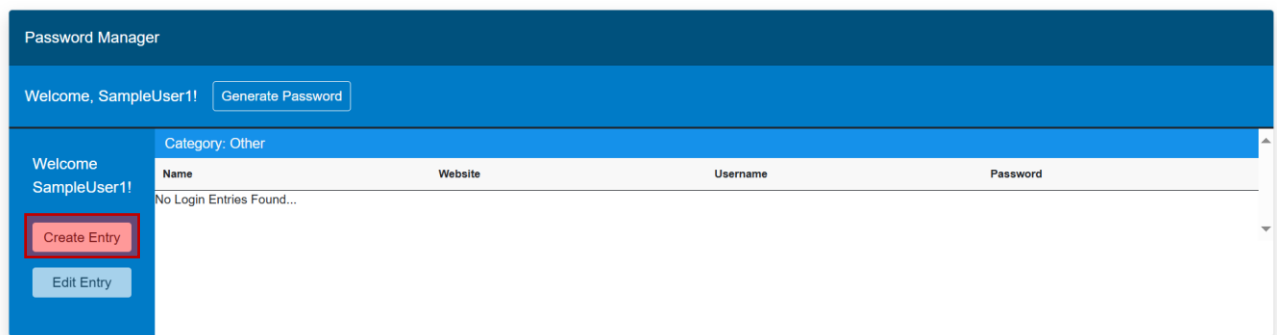
Steps to take:

Below is a short summation of the steps required. Please navigate to the following pages for a detailed walk-through for each step.

1. Click “Create Entry”.
2. Enter Login Entry details.
3. Select “Add”, or “Cancel”.

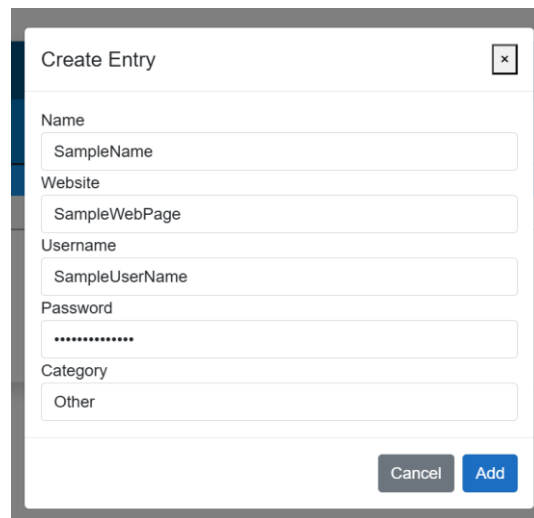
Step 1: Click “Create Entry”

Click “Create Entry” and wait for a popup window to appear.



Step 2: Enter Login Entry details

After completing step 1, a popup window will appear:



A modal window titled "Create Entry" with a close button (X) in the top right corner. It contains five text input fields: "Name" (containing "SampleName"), "Website" (containing "SampleWebPage"), "Username" (containing "SampleUserName"), "Password" (containing "*****"), and "Category" (containing "Other"). At the bottom right are "Cancel" and "Add" buttons.

Enter the Login Entry information you wish to add. Please be careful to fill out all fields.

Name: A name for this Login Entry, i.e. maybe the name of the webpage or firm.

Website: A http link to the webpage associated with this Login Entry.

Username: The username that is required to login on the specified website.

Password: The password that is required to login on the specified website.

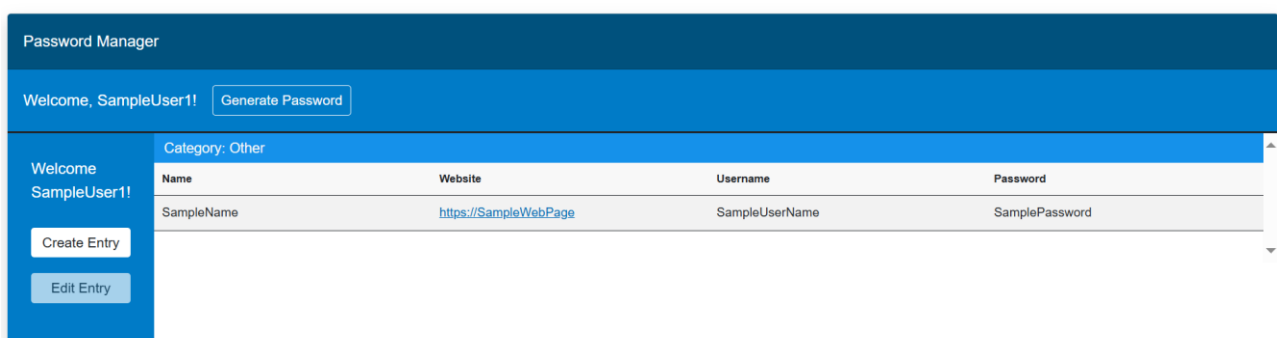
Category: Which category should the Login Entry be classified under (**Note: Currently not fully implemented**)

Step 3: Select "Add" or "Cancel"

Select "Add" to create Login Entry with the specified information, or

Select "Cancel", if you wish to cancel the creation.

After clicking "add" the view should update, now showing the added Login Entry:



The main application window titled "Password Manager". It has a dark blue header bar. Below the header is a blue bar with "Welcome, SampleUser1!" and a "Generate Password" button. The main content area has a left sidebar with "Welcome SampleUser1!", "Create Entry", and "Edit Entry" buttons. The main area shows a table with the following data:

Name	Website	Username	Password
SampleName	https://SampleWebPage	SampleUserName	SamplePassword

4. View existing Login Entries

Purpose:

This chapter explains how to view Login Entries that have been created. A Login Entry is the basic term used to reference the login information associated with an external application, webpage, system, etc. This is the primary data type handled by the Password Manager Software, and its main purpose.

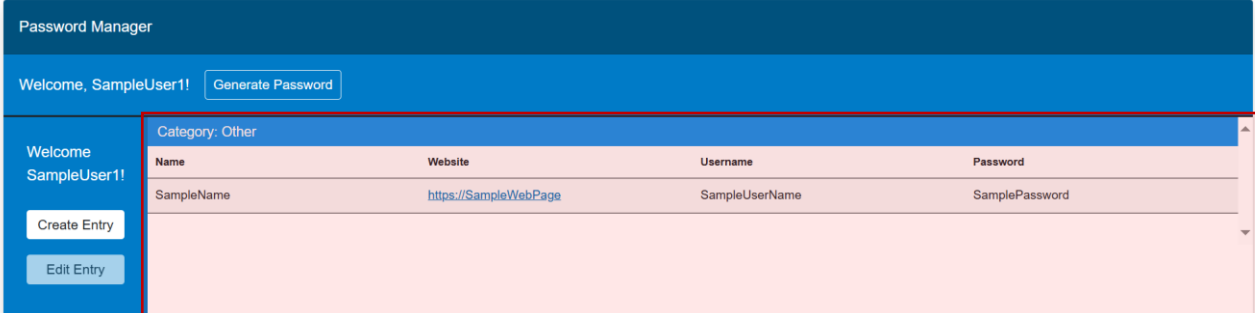
Pre-conditions:

The Password Manager Software must be installed and servers running. Browser must be opened to the address: <https://localhost:7062>. User must already have logged in with a user account. User must already have added at least one Login Entry to their account.

Steps to take:

Below is a short summation of the steps required. Please navigate to the following pages for a detailed walk-through for each step.

1. No further action is needed. If Login Entries exist, associated with the logged in user, they will automatically be displayed in the Dashboard, once successfully logged in.



The screenshot shows the Password Manager dashboard. At the top, there's a dark blue header with 'Password Manager'. Below it, a blue bar contains 'Welcome, SampleUser1!' and a 'Generate Password' button. On the left, a blue sidebar has 'Welcome SampleUser1!', 'Create Entry', and 'Edit Entry' buttons. The main area is a table with a blue header row 'Category: Other' and a pink body row. The table has four columns: Name, Website, Username, and Password. The data row shows 'SampleName', 'https://SampleWebPage', 'SampleUserName', and 'SamplePassword'.

Category: Other			
Name	Website	Username	Password
SampleName	https://SampleWebPage	SampleUserName	SamplePassword

Note: Currently all Login Entries are displayed under the “Other” category. This is because the Category functionality is not fully implemented in this pre-release version.

5. Editing existing Login Entries

Purpose:

This chapter explains how to edit Login Entries that have already been created. A Login Entry is the basic term used to reference the login information associated with an external application, webpage, system, etc. This is the primary data type handled by the Password Manager Software, and its main purpose.

Pre-conditions:

The Password Manager Software must be installed and servers running. Browser must be opened to the address: <https://localhost:7062>. User must already have logged in with a user account. User must already have added at least one Login Entry to their account.

Steps to take:

Below is a short summation of the steps required. Please navigate to the following pages for a detailed walk-through for each step.

1. With the mouse, click on the Login Entry you want to edit.

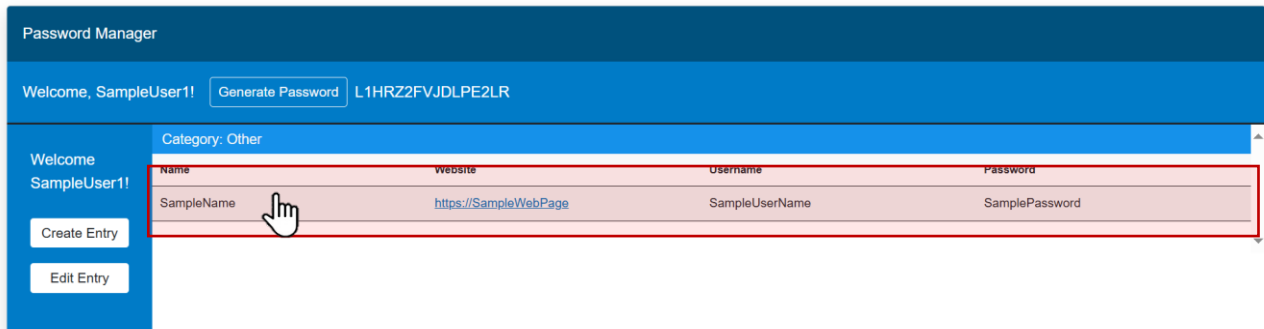
Tip: Double-click the login entry you want to update to directly open the 'Edit Login Entry' view

2. Select “Edit Entry”
3. Enter/Adjust the Login Entry information or select “Cancel” to abort.
4. Select “Save” to save the changes.

Step 1: With the mouse, click on the Login Entry you want to edit.

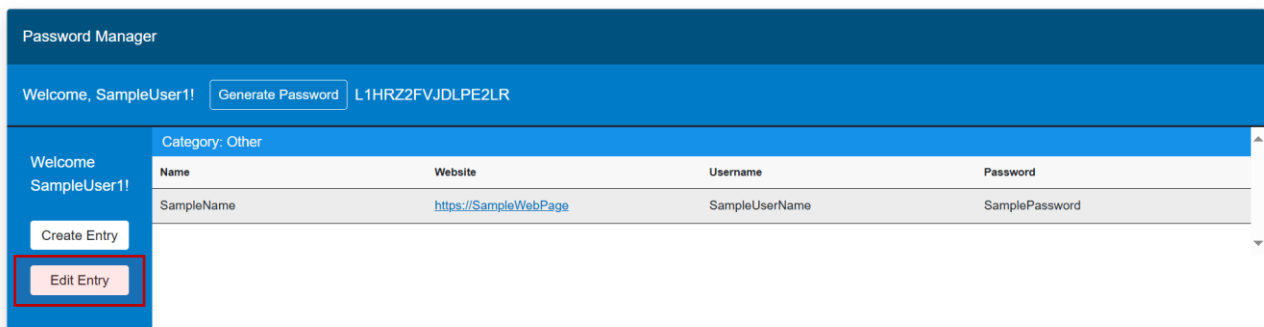
Using the mouse, click on the Login Entry you wish to edit.

In the screenshot below, we wish to edit the “SampleName” Login Entry.



Step 2: Select 'Edit Entry'

Select 'Edit Entry' and wait for a popup window to appear.

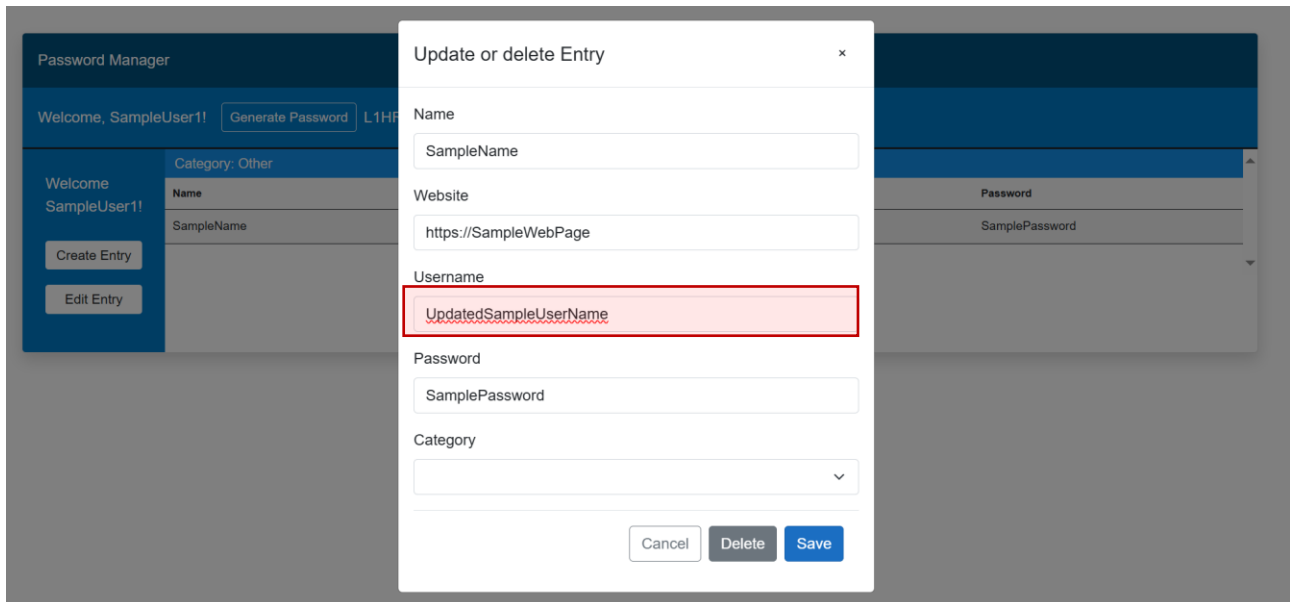


Step 3: Enter/Adjust the Login Entry information or select “Cancel” to abort.

After allowing the popup window to appear, then please **modify** the desired data.

If you at any point wish to abort the operation, please select the “Cancel” button.

In the screenshot below, we wish to update the *SampleUserName* to *UpdatedSampleUserName*.



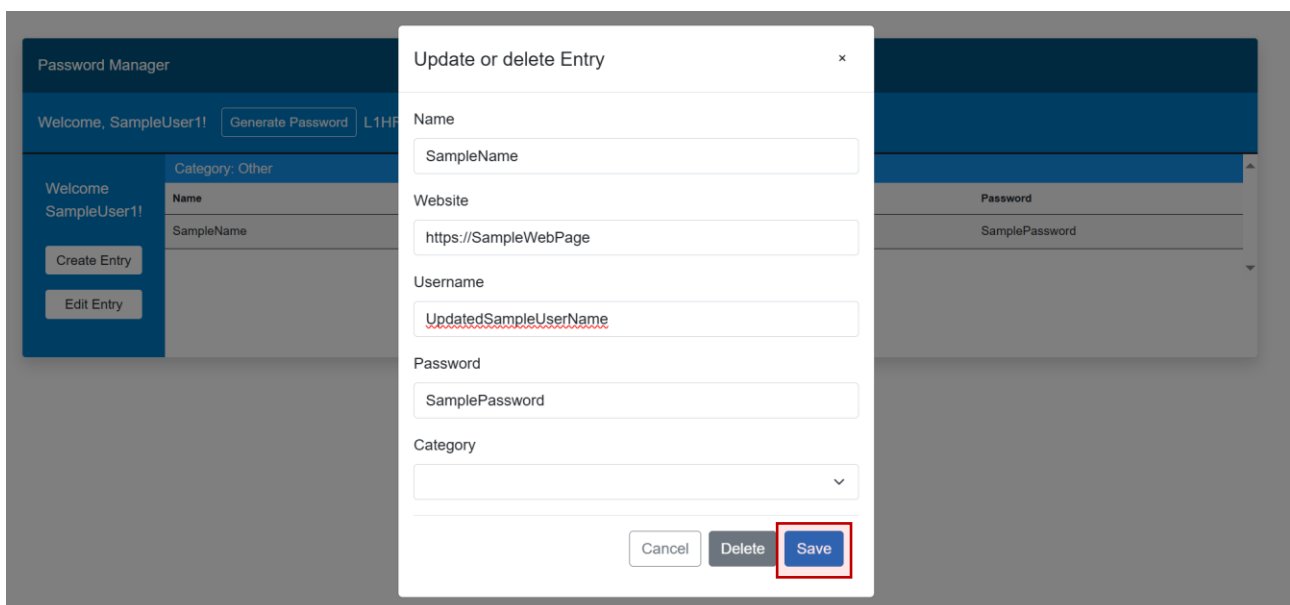
The screenshot shows the 'Password Manager' application interface. A modal dialog titled 'Update or delete Entry' is open. The dialog contains the following fields:

- Name: SampleName
- Website: https://SampleWebPage
- Username: UpdatedSampleUserName (highlighted with a red border)
- Password: SamplePassword
- Category: (dropdown menu)

At the bottom of the dialog are three buttons: Cancel, Delete, and Save.

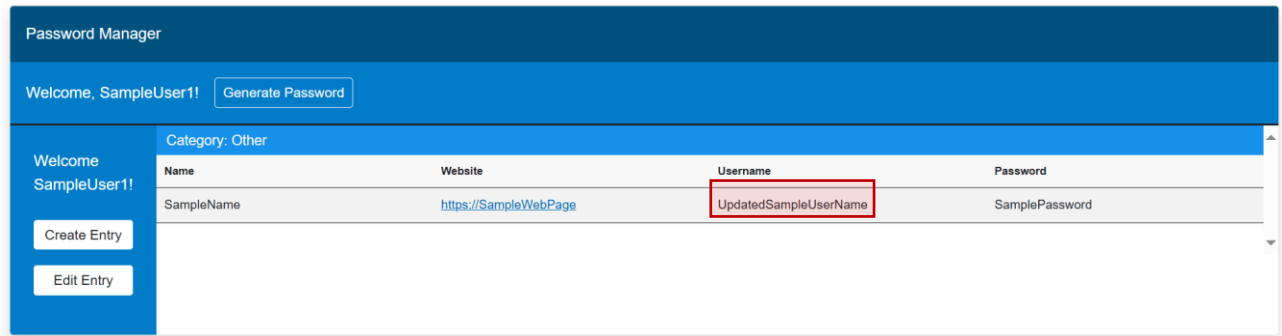
Step 4: Select ‘Save’ to save the changes.

Click “Save” to save the changes.



This screenshot is identical to the previous one, showing the 'Update or delete Entry' dialog box with the Username field highlighted. In this version, the 'Save' button at the bottom right of the dialog is highlighted with a red border.

The dashboard will now update and display the saved changes.



The screenshot shows the Password Manager dashboard. At the top, there's a dark blue header with 'Password Manager'. Below it, a blue bar contains 'Welcome, SampleUser1!' and a 'Generate Password' button. The main area has a left sidebar with 'Welcome SampleUser1!', 'Create Entry', and 'Edit Entry' buttons. The main content area shows a table with columns: Name, Website, Username, and Password. The first row has 'SampleName', 'https://SampleWebPage', 'UpdatedSampleUserName' (highlighted with a red box), and 'SamplePassword'. Above the table, there's a 'Category: Other' dropdown.

Name	Website	Username	Password
SampleName	https://SampleWebPage	UpdatedSampleUserName	SamplePassword

6. Deleting existing Login Entries

Purpose:

This chapter explains how to delete Login Entries that have already been created. A Login Entry is the basic term used to reference the login information associated with an external application, webpage, system, etc. This is the primary data type handled by the Password Manager Software, and its main purpose.

Pre-conditions:

The Password Manager Software must be installed and servers running. Browser must be opened to the address: <https://localhost:7062>. User must already have logged in with a user account. User must already have added at least one Login Entry to their account.

Steps to take:

Below is a short summation of the steps required. Please navigate to the following pages for a detailed walk-through for each step.

1. With the mouse, click on the Login Entry you want to edit.

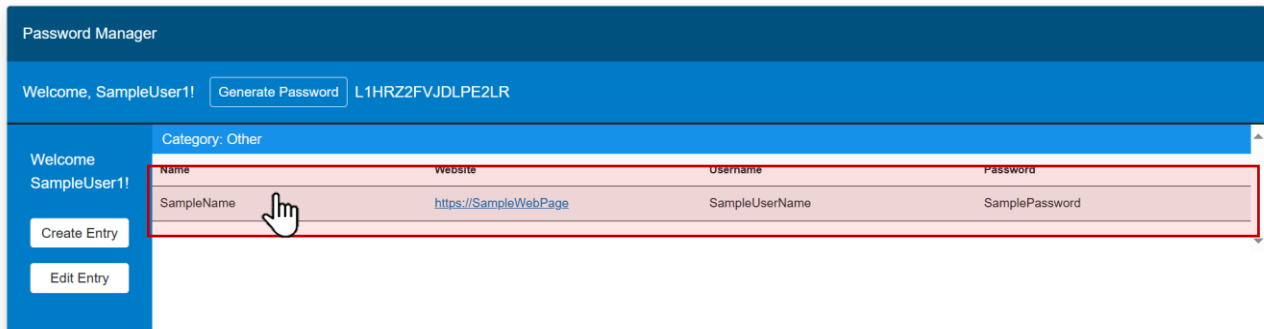
Tip: Double-click the login entry you want to update to directly open the 'Edit Login Entry' view

2. Select "Edit Entry"
3. Select "Delete"
4. Confirm the removal

Step 1: With the mouse, click on the Login Entry you want to edit.

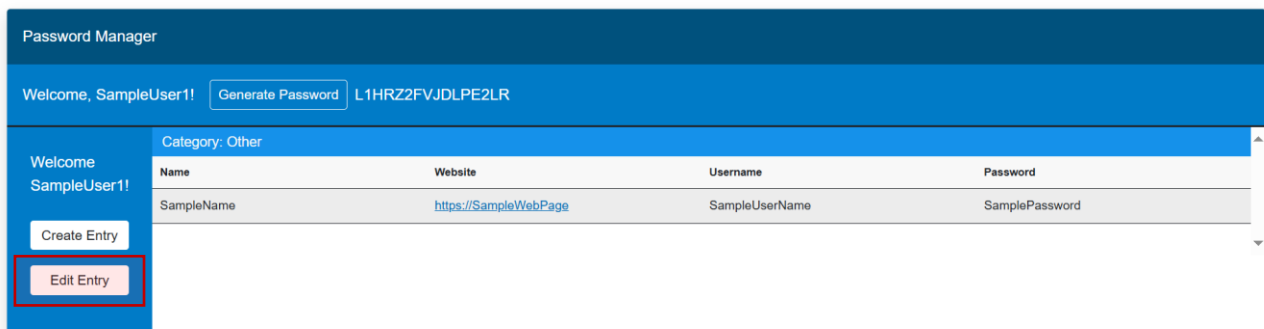
Using the mouse, click on the Login Entry you wish to edit.

In the screenshot below, we wish to edit the “SampleName” Login Entry.



Step 2: Select 'Edit Entry'

Select 'Edit Entry' and wait for a popup window to appear.

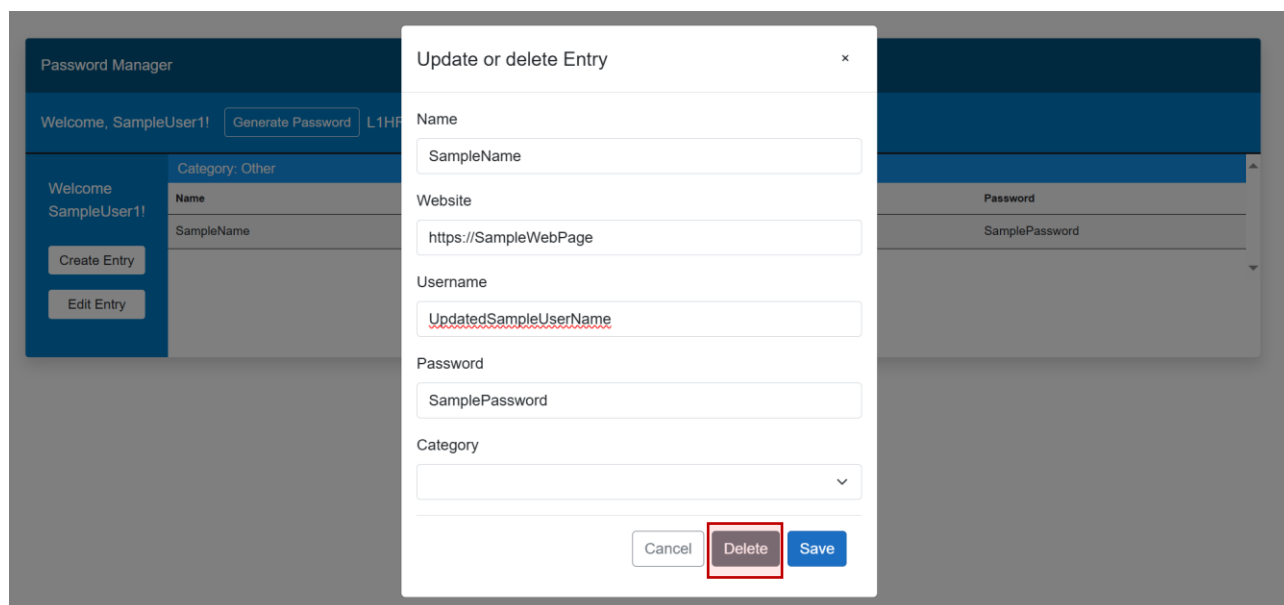


Step 3: Enter/Adjust the Login Entry information or select “Cancel” to abort.

After allowing the popup window to appear and then **select** the “Delete” button.

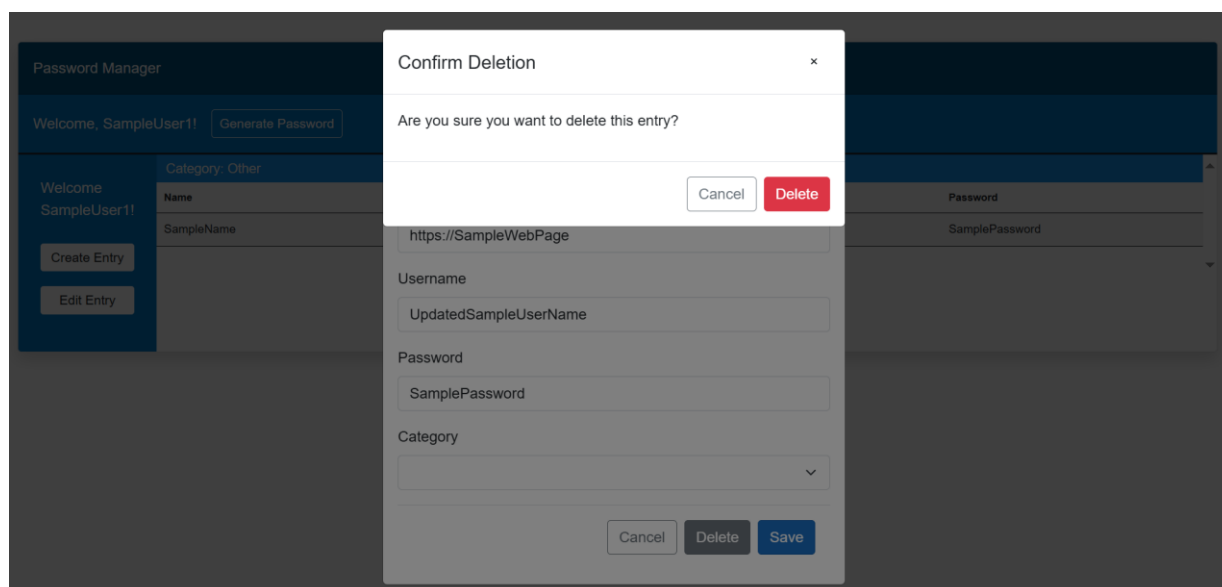
If you at any point wish to abort the operation, please **select** the “Cancel” button.

In the screenshot below, we wish to delete the Login Entry named *SampleName*.

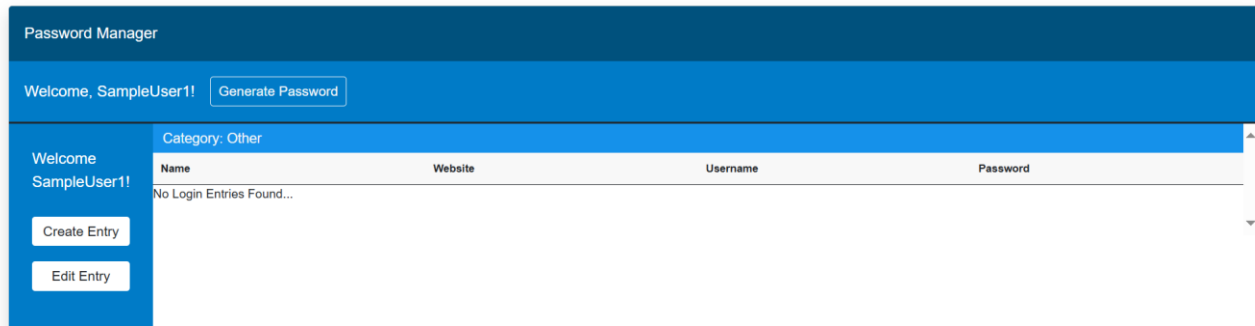


Step 4: Confirm the removal

Select “Delete” again, to confirm the removal of this Login Entry.



The dashboard will now update, removing the deleted Login Entry.



7. Generate a strong Password

Purpose:

This chapter explains how to utilize the Password Manager's built in feature, to automatically generate Strong Passwords. This is useful if you are signing up for another website and wish to easily get a complex password that can improve your account security.

Pre-conditions:

The Password Manager Software must be installed and servers running. Browser must be opened to the address: <https://localhost:7062>. User must already have logged in with a user account.

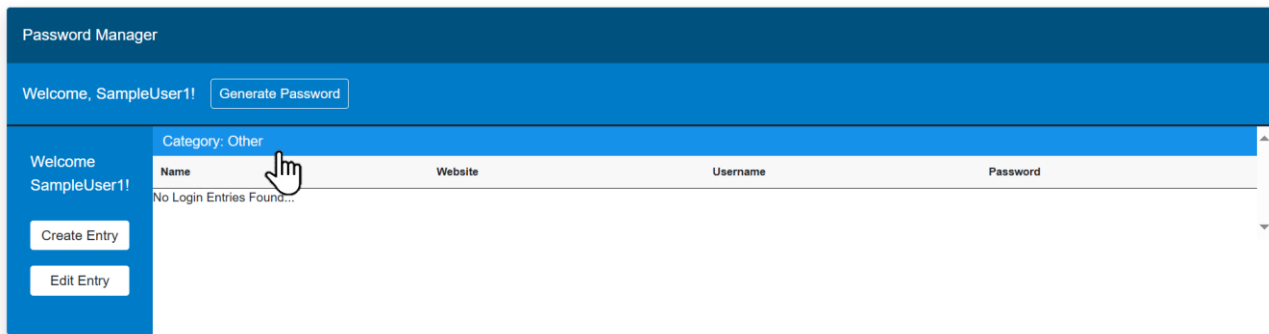
Steps to take:

Below is a short summation of the steps required. Please navigate to the following pages for a detailed walk-through for each step.

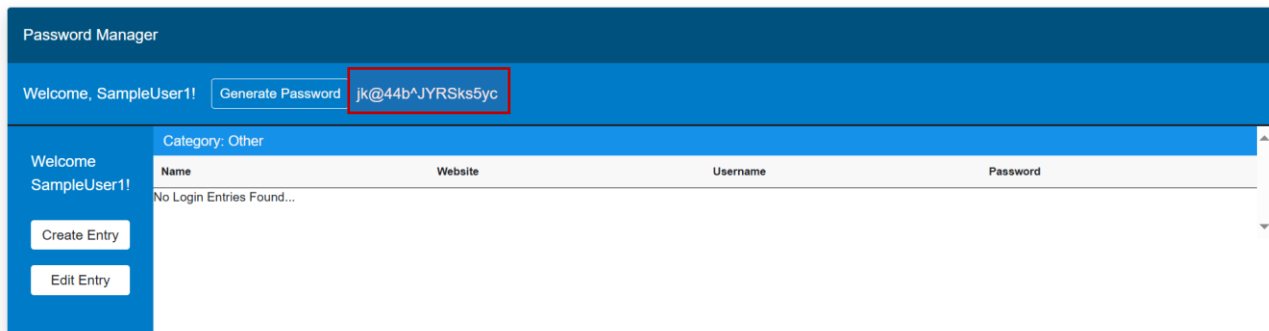
1. With the mouse, click on the "Generate Password" button.

Step 1: With the mouse, click on the “Generate Password” buttont.

Select “Generate Password” in the upper blue bar.



The Password manager will now generate, and display, a password that can be selected and copied into the application/webpage you need a password for.



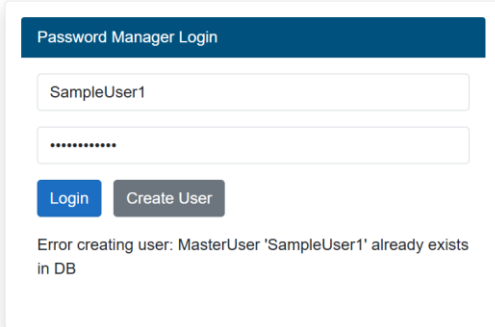
8. Exceptions

This chapter presents frequently occurring exceptions with possible approaches to remedy the exception.

8.1. Frequent exceptions while logging in, or creating an account

During user account login, or creation, many exceptions can occur. Below are listed the most common.

8.1.1. Error creating user: MasterUser already exists

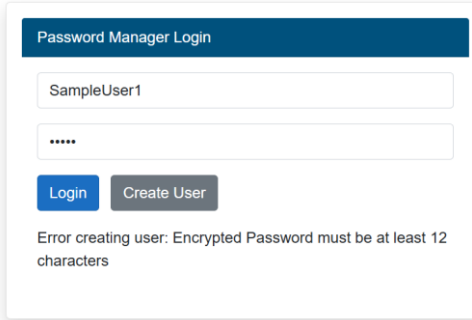


The screenshot shows a web form titled "Password Manager Login". It has two input fields: the first contains "SampleUser1" and the second contains masked characters "*****". Below the fields are two buttons: "Login" (blue) and "Create User" (grey). Below the buttons, an error message is displayed: "Error creating user: MasterUser 'SampleUser1' already exists in DB".

Cause : Occurs while creating a new user account, when another user account exists with the specified username.

Solution : Choose another username and try again.

8.1.2. Error creating user: Encrypted Password must be at least 12 characters

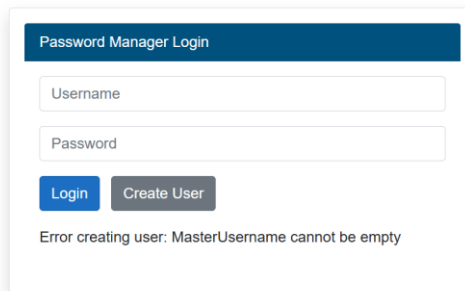


The screenshot shows a web form titled "Password Manager Login". It has two input fields: the first contains "SampleUser1" and the second contains masked characters "*****". Below the fields are two buttons: "Login" (blue) and "Create User" (grey). Below the buttons, an error message is displayed: "Error creating user: Encrypted Password must be at least 12 characters".

Cause : Occurs while creating a new user account, when the specified password does not contain min. 12 characters.

Solution : Choose a longer password, and try again.

8.1.3. Error creating user: MasterUsername cannot be empty

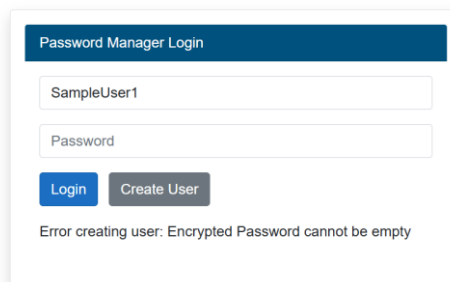


The screenshot shows a web form titled "Password Manager Login". It contains two input fields: "Username" and "Password". Below the fields are two buttons: "Login" (blue) and "Create User" (grey). At the bottom of the form, an error message is displayed: "Error creating user: MasterUsername cannot be empty".

Cause : Occurs while creating a new user account, when no username has been specified

Solution : Choose a username and try again.

8.1.4. Error creating user: Encrypted Password cannot be empty

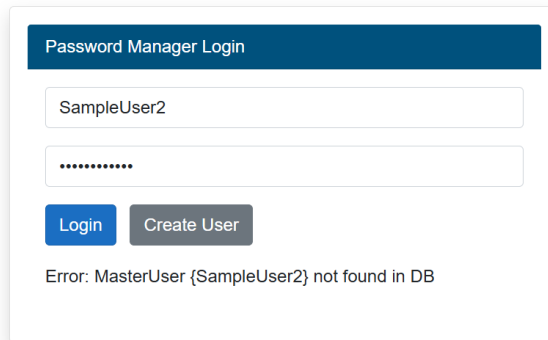


The screenshot shows a web form titled "Password Manager Login". It contains two input fields: "Username" and "Password". The "Username" field is filled with the text "SampleUser1". Below the fields are two buttons: "Login" (blue) and "Create User" (grey). At the bottom of the form, an error message is displayed: "Error creating user: Encrypted Password cannot be empty".

Cause : Occurs while creating a new user account, when no password has been specified

Solution : Choose a password and try again.

8.1.5. Error: MasterUser not found in DB

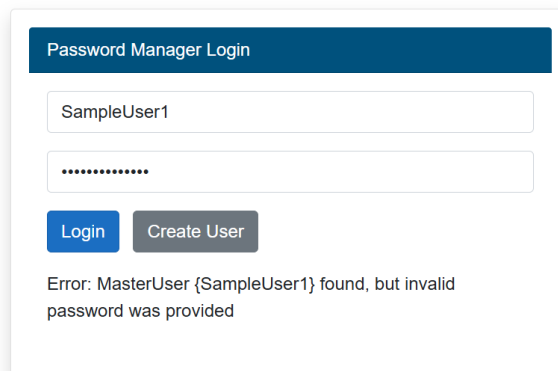


The screenshot shows a web form titled "Password Manager Login". It has two input fields: the first contains "SampleUser2" and the second contains masked characters ".....". Below the fields are two buttons: "Login" (blue) and "Create User" (grey). At the bottom, an error message reads: "Error: MasterUser {SampleUser2} not found in DB".

Cause : Occurs when no user account with the specified name exists.

Solution : Enter a name of a user account that exists, or create a new account.

8.1.6. Error: MasterUser found, but invalid password provided



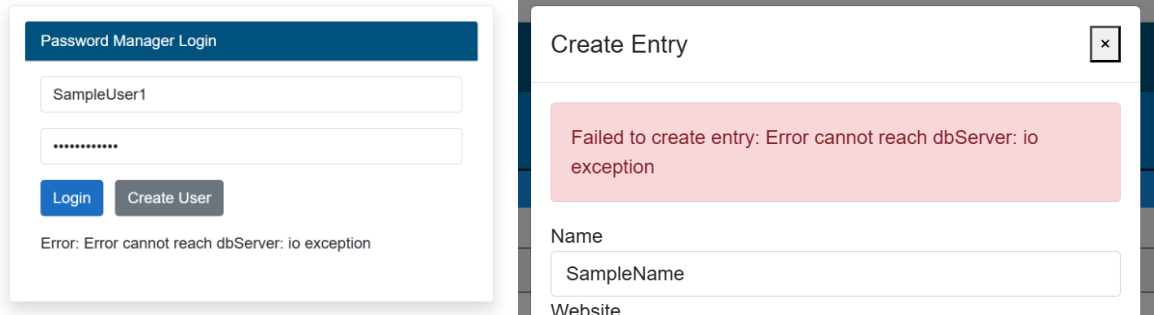
The screenshot shows a web form titled "Password Manager Login". It has two input fields: the first contains "SampleUser1" and the second contains masked characters ".....". Below the fields are two buttons: "Login" (blue) and "Create User" (grey). At the bottom, an error message reads: "Error: MasterUser {SampleUser1} found, but invalid password was provided".

Cause : Occurs when the specified account exists, but user failed to provide the valid password.

Solution : Enter the valid password for the specified user account.

8.2. Frequent Generic Exceptions

8.2.1. Error: Error cannot reach dbServer: io exception



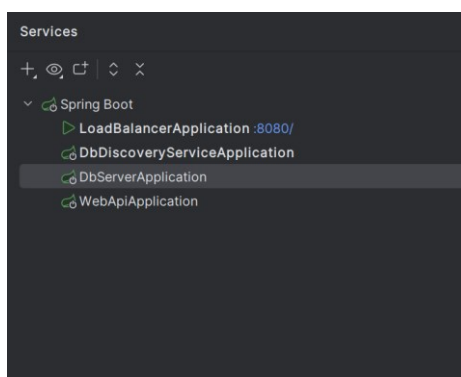
Cause : Occurs when the browser cannot establish connection with the database server.

Solution : Several possible solutions exist:

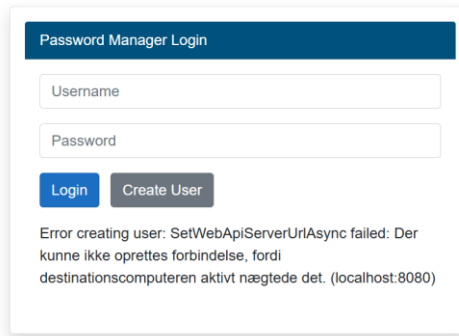
Option 1: Check that the Database Server is up, running and fully initialized.

Option 2: Try clicking and performing the action again a few times. In the pre-release version, it can be difficult to establish proper connection if multiple developers are running the database servers on each of their local computers. This is due to the database addresses all being 'localhost' but with a dynamically assigned port that can be unique on different computers.

Option 3: If none of the above work, then manually launch the DbServerApplication Spring Boot service shown below. This will force a local Database Server to launch on port 9090. Re-attempt option 2 and click several times until you get access. Once connection has first been established it is reused.



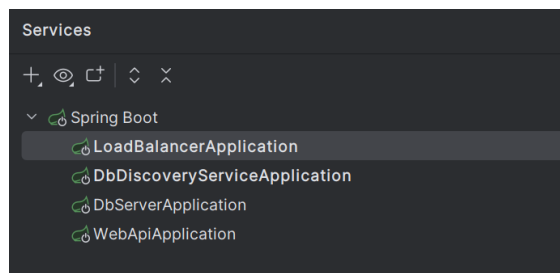
8.2.2. SetWebApiServerUrlAsync failed: Der kunne ikke oprettes forbindelse, fordi destinationscomputeren aktivt nægtede det (localhost:8080)



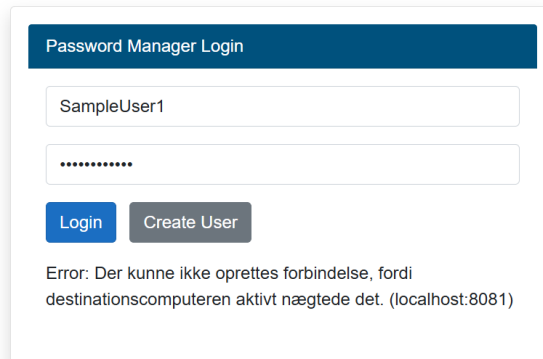
The screenshot shows a 'Password Manager Login' form. It has two input fields: 'Username' and 'Password'. Below these are two buttons: 'Login' (blue) and 'Create User' (grey). Below the buttons, there is an error message in Danish: 'Error creating user: SetWebApiServerUrlAsync failed: Der kunne ikke oprettes forbindelse, fordi destinationscomputeren aktivt nægtede det. (localhost:8080)'.

Cause : Occurs when the browser cannot establish connection with any server.

Solution : Ensure that the LoadBalancerApplication is running on port 8080, and that it has properly instantiated a WebApiApplication also. It shouldn't be necessary to manually launch any WebApiApplications – but if the issue persists, then that may be a temporary solution.



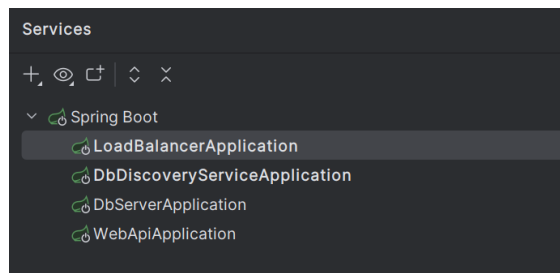
8.2.3. Error: Der kunne ikke oprettes forbindelse, fordi destinationscomputeren aktivt nægtede det (localhost:8081)



The screenshot shows a web form titled "Password Manager Login". It has two input fields: the first contains "SampleUser1" and the second contains masked characters "*****". Below the fields are two buttons: "Login" (blue) and "Create User" (grey). At the bottom, an error message is displayed: "Error: Der kunne ikke oprettes forbindelse, fordi destinationscomputeren aktivt nægtede det. (localhost:8081)".

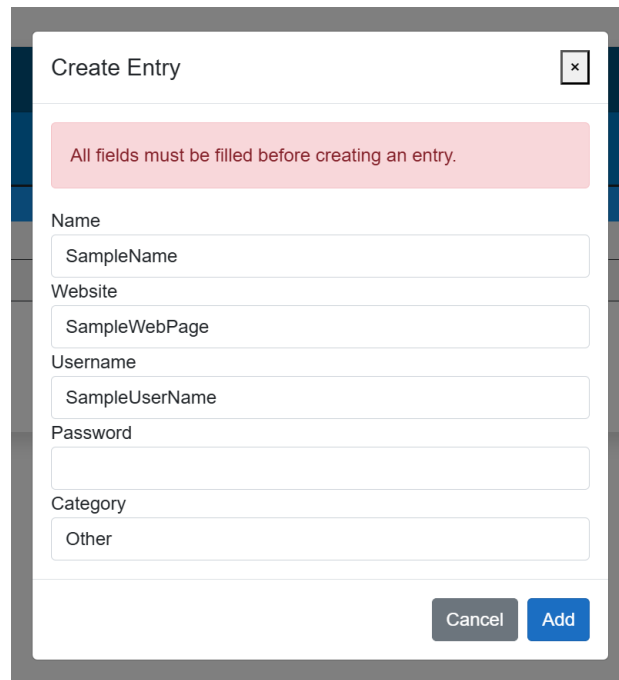
Cause : Occurs when the browser cannot establish connection with any server.

Solution : Ensure that the LoadBalancerApplication is running on port 8080 and that a WebApiApplication server is running on port 8081. It shouldn't be necessary to manually launch any WebApiApplications – but if the issue persists, then that may be a temporary solution.



8.3. Frequent exceptions while managing Login Entries

8.3.1. All fields must be filled before creating an entry



The screenshot shows a 'Create Entry' dialog box with a red error message at the top: 'All fields must be filled before creating an entry.' Below the message are five input fields: 'Name' (containing 'SampleName'), 'Website' (containing 'SampleWebPage'), 'Username' (containing 'SampleUserName'), 'Password' (empty), and 'Category' (containing 'Other'). At the bottom right are 'Cancel' and 'Add' buttons.

Field	Value
Name	SampleName
Website	SampleWebPage
Username	SampleUserName
Password	
Category	Other

Cause : Occurs when the user does not fill out all the fields. In the above picture the password was not provided. Especially ensure to select a proper category, despite the categorization functionality not being fully implemented in this pre-release version.

Solution : Fill out all fields and try again.