

The RiskTaker User Manual

School of Electrical, Electronic & Computer Engineering



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Project Team

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Introduction

RiskTaker is a web application built to assist small start-up companies or projects. The focus is on helping project teams track, record and assess cyber security risk timely and efficiently. This RiskTaker web application is an extension of an existing iOS application in which the current build of RiskTaker only allows singular individuals to operate the app at any given time. This makes collaboration between project members impossible, therefore a "collaboration" edition has to be developed. The web application is required to have an admin portal and a front-end that is mobile-friendly for users. The project client is Joshua Qwek, a cyber security architect at UWA.

About the RiskTaker application

From the official client website at <https://www.therisktaker.app/>:

"The RiskTaker App is an indispensable tool that enables cybersecurity advisors & project stakeholders to work collaboratively across multiple concurrent projects and not drop the ball on cybersecurity risks. It is designed to help organisations improve how cybersecurity risks are tracked and managed, and enhances the risk culture within project teams."

Pages & Features

Registering

To begin your RiskTaker journey click on register and enter a valid email address and password. Once your account is created you will be ready to begin your cyber security analysis.

Signing up

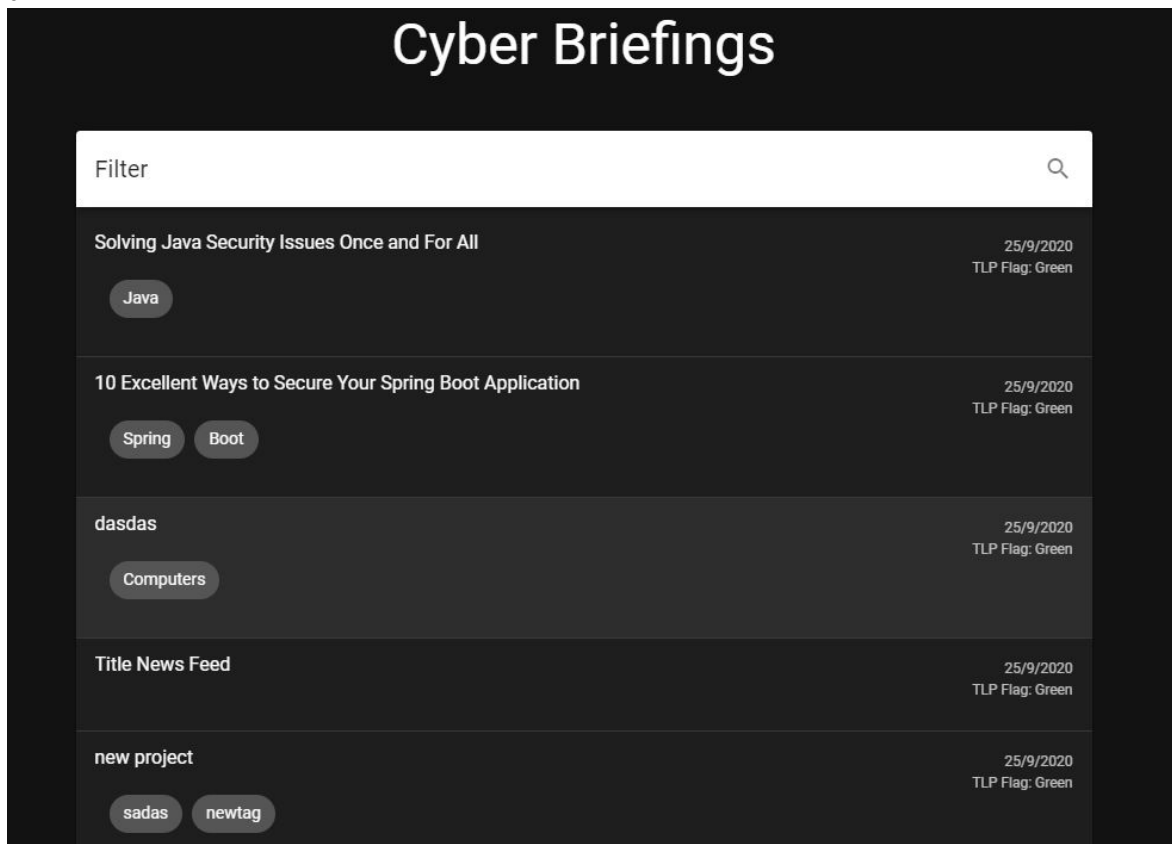
Any user can sign up using a valid username and password. There are certain password requirements to retain security. Once a user has signed up they can now look at cyber security news feed, create projects or manage existing projects.

Login

Users can login to the applications with their credentials. There are also buttons for logging in with other platforms such as Google, Twitter and Facebook, however these aren't functional and are present for keeping the design consistent with Joshua's vision. Implementing the functionality for these buttons are out of scope for the current project and can be done in future iterations.

News Feed

The news feed is cyber-based news briefs to inform users of current events and allow users to read more or follow up with the original source of the news brief. This has news from multiple sources and the news feed is managed by an admin user. News feed has fields such as the title, summary, date of the news post being created, release date and relevant tags for the news feed. Tags are free texts fields relevant to the news feed and help link relevant topics to the project.



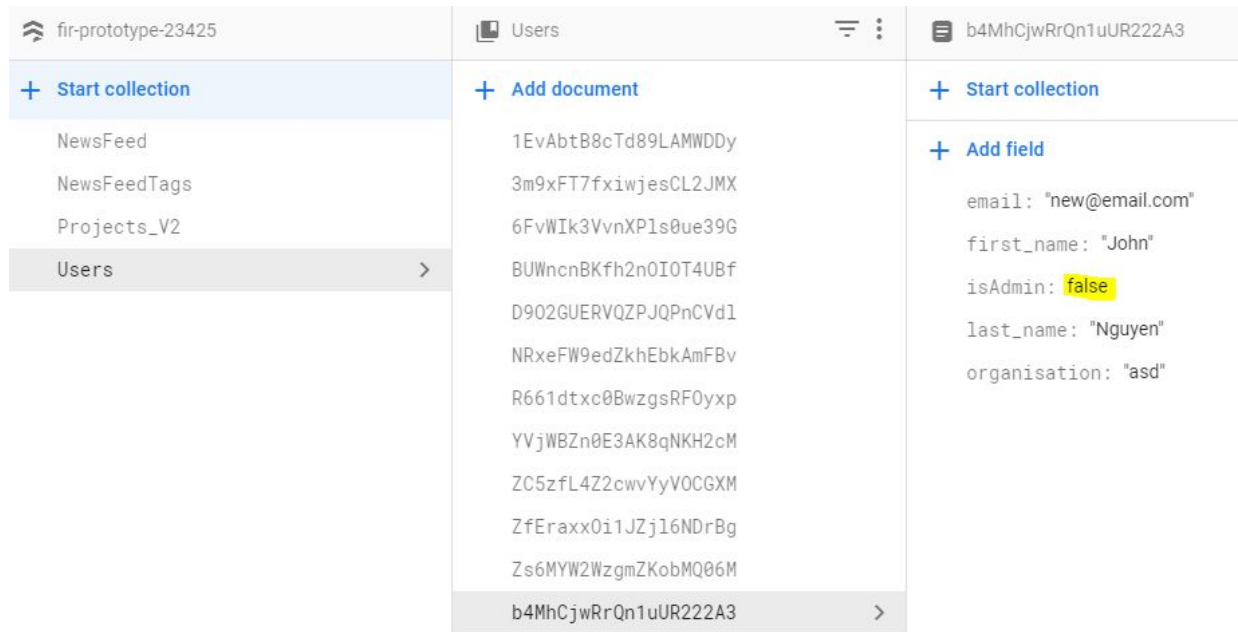
Add news feed

To aid the admin user in generating the news feed, there is a python script provided in the repository which can be used to automatically retrieve posts from r/cybersecurity and store them in the RiskTaker web application database.

Admin access can be managed on the RiskTaker website through the Admin page as shown below. Admin access is intended for the product owner of the website, Joshua Qwek, if you require admin access on the RiskTaker website this please contact Joshua or another admin to elevate your user account, the two methods of elevating to admin access are shown below.

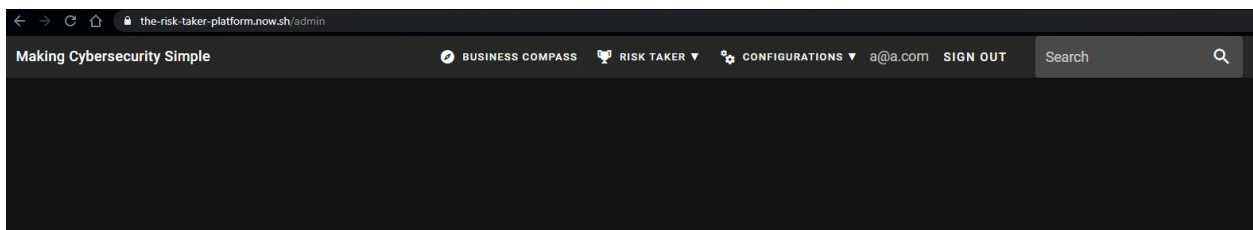
Firebase Admin Instructions

Admin access can be granted through the RiskTaker website however if other user modifications are required or are needed to be removed this can be updated through the Firebase console. Please update the User collection ensure the `isAdmin` (boolean) field is set from either nothing or *false* to *true* as shown below:

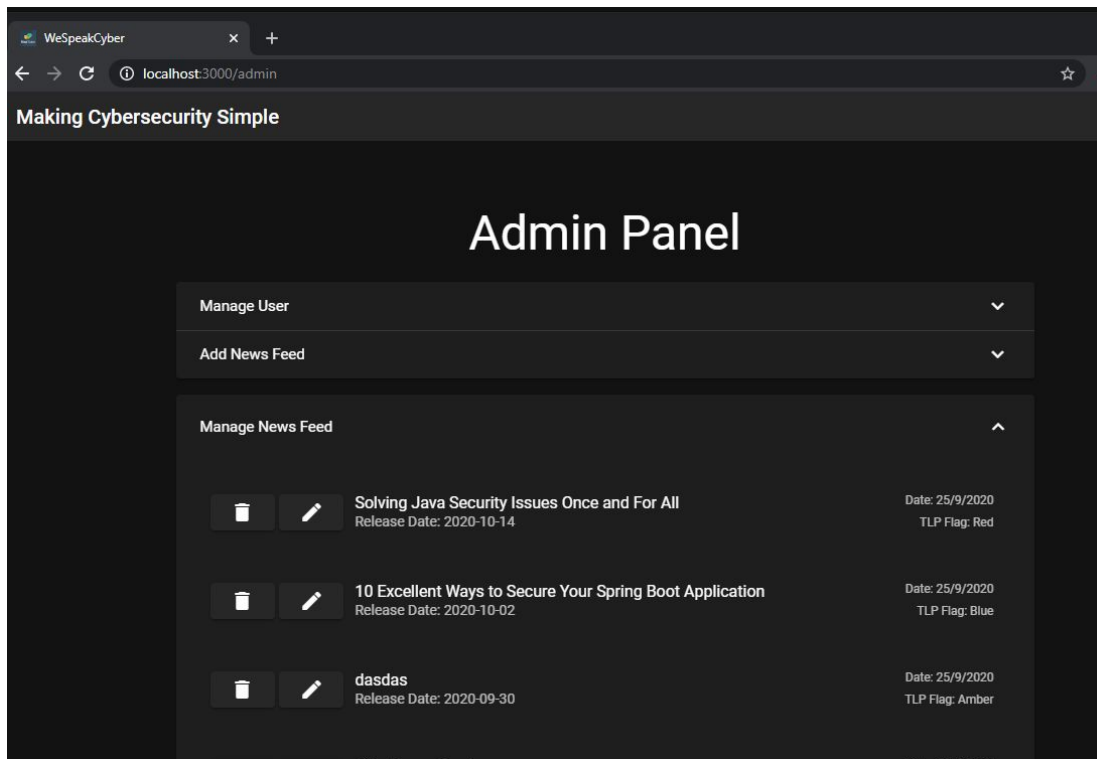


Administration Page

The administration page is hidden by default and will appear as a blank screen if a user attempts to access it.



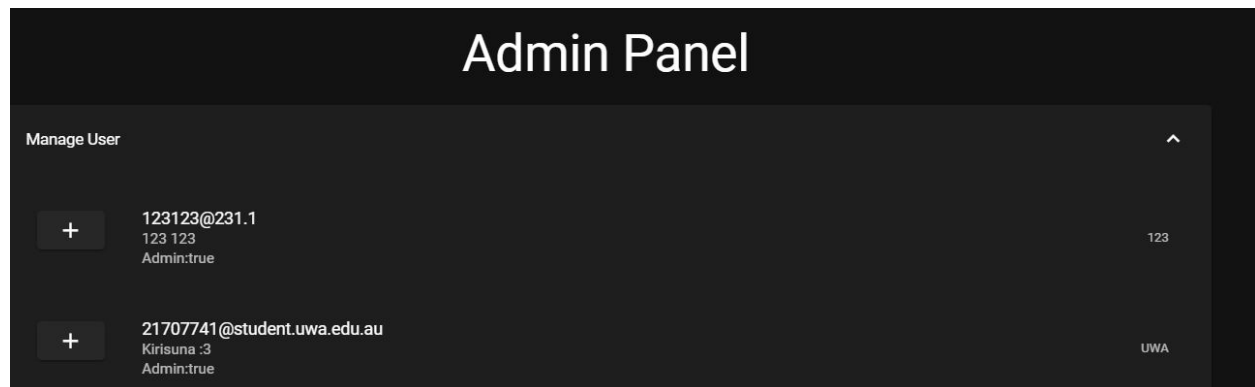
However if a user is administrator the following page will appear:



Administrators have 3 core functionalities -

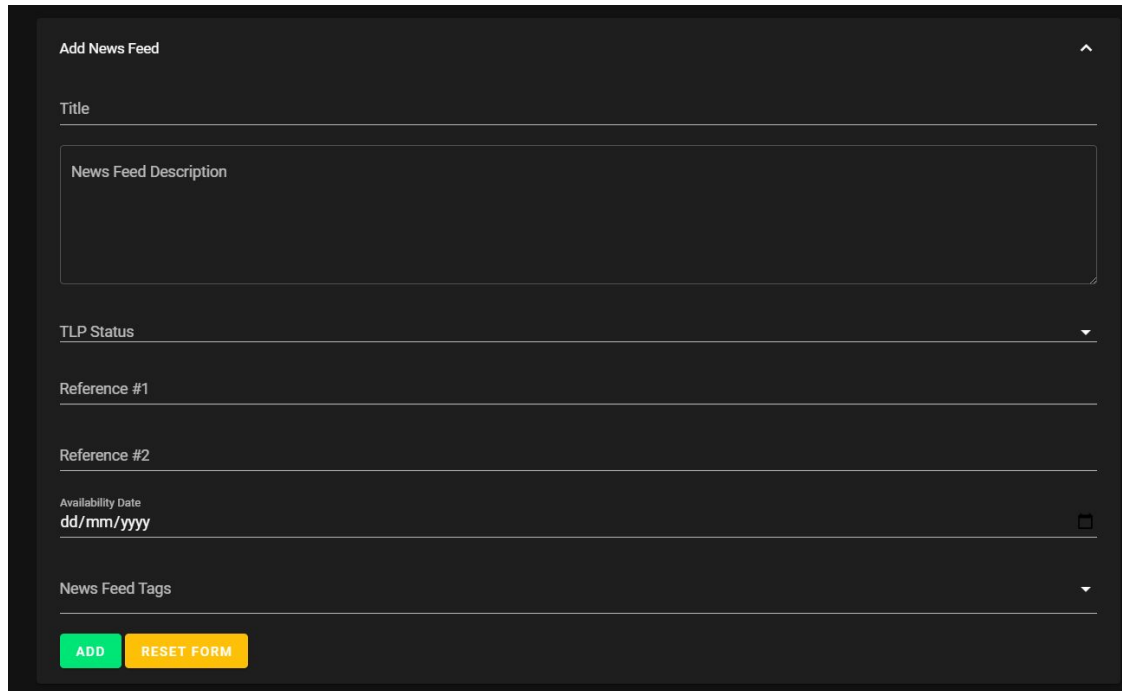
Manage Users

Manage users allow admins to review all users on the RiskTaker website including their information such as first and last name, organisation and their admin privileges. Pressing the “+” button elevates a user to admin (same behaviour as if set through Firebase Admin).



Add News Feed

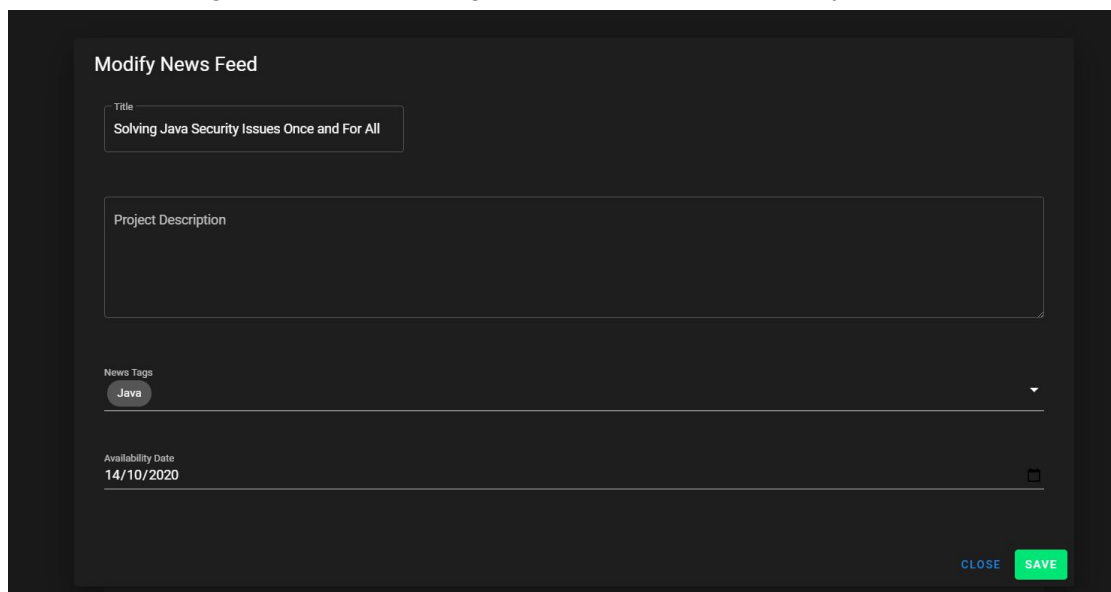
Add news feed allows users to fill in Title, News Feed, TLP Status, Reference #1 & #2, Availability date and News Feed tags. Once submitted the news feed will be available to be viewed in the News Feed page.



The 'Add News Feed' form is a dark-themed dialog box with a title bar 'Add News Feed' and a close icon. It contains several input fields: 'Title' (a single-line text field), 'News Feed Description' (a large multi-line text area), 'TLP Status' (a dropdown menu), 'Reference #1' (a single-line text field), 'Reference #2' (a single-line text field), 'Availability Date' (a date picker showing 'dd/mm/yyyy'), and 'News Feed Tags' (a dropdown menu). At the bottom, there are two buttons: a green 'ADD' button and a yellow 'RESET FORM' button.

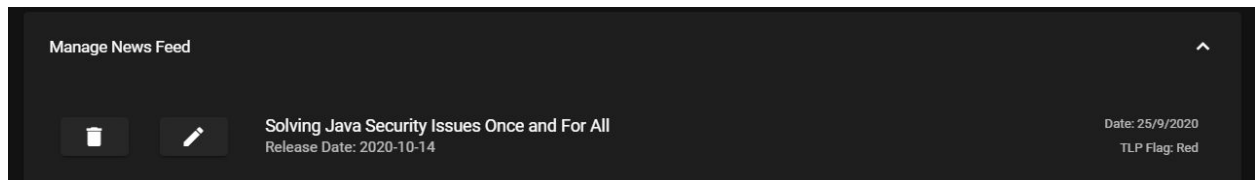
Manage News Feed

Modify allows the user to change the title, news feed summary/description and the news tags and once the modified fields have been updated and pressed save it will be updated in the database. The Manage News Feed dialog functions as extra an ability to look up further details.



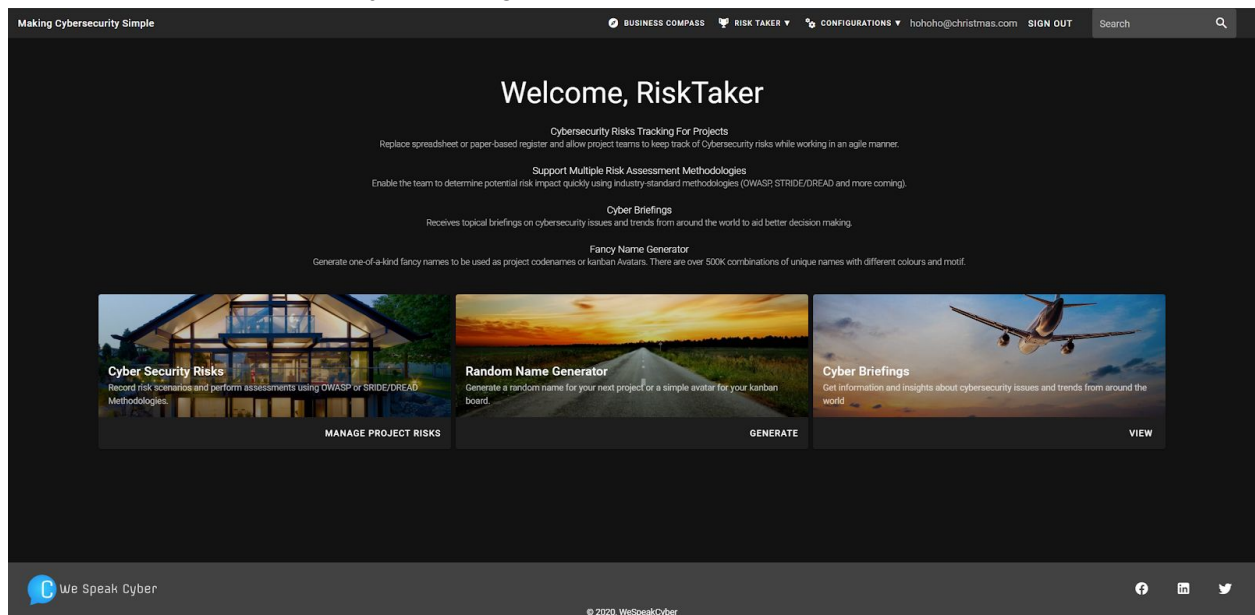
The 'Modify News Feed' form is a dark-themed dialog box with a title bar 'Modify News Feed'. It contains several input fields: 'Title' (a single-line text field with the value 'Solving Java Security Issues Once and For All'), 'Project Description' (a large multi-line text area), 'News Tags' (a dropdown menu with 'Java' selected), and 'Availability Date' (a date picker showing '14/10/2020'). At the bottom right, there are two buttons: a blue 'CLOSE' button and a green 'SAVE' button.

'Delete' will delete the news feed, please be cautious, since deleting as an administrator because there will be no confirmation or warnings.



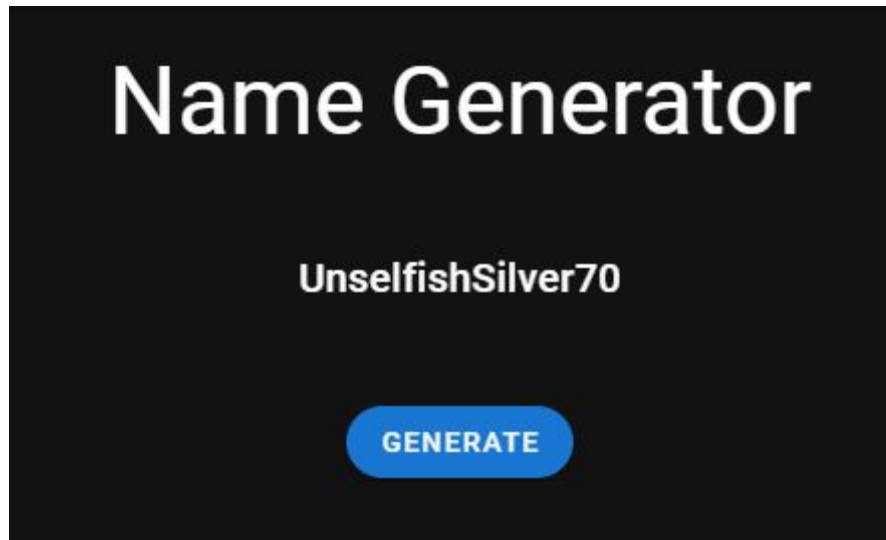
Main Page

The main page is the portal to allow the user to access the functionality of the original RiskTaker app - this is News Feed, Project Management and Name Generator.



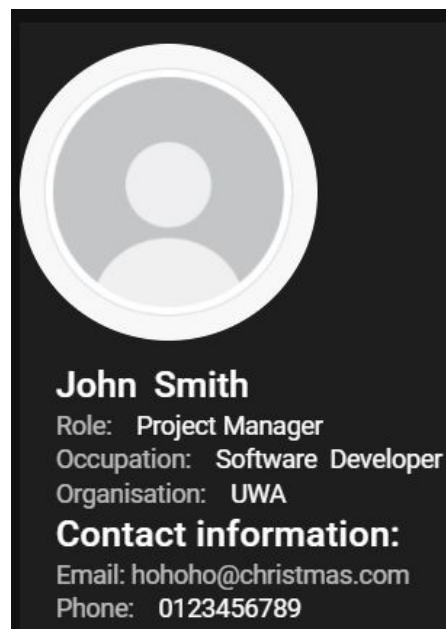
Name Generator

This, as the name suggests, is a quick generator to produce a randomised name - this functionality is a legacy functionality carried on from the original iOS RiskTaker application. Click on 'Generate' to create a randomised username such as CarelessWarning42 or UnselfishSilver70.



Profile management

When entering the profile page, all the appropriate user data is correctly loaded and parsed into the fields under the user's avatar.



On the right side of the page, an edit button can be located, when pressed, it toggles edit mode for all applicable fields for the user data, the only exclusion being the email, since that is the user's anchor in the firebase storage.

A dark rectangular button with the text "EDIT PROFILE" in white, bold, uppercase letters.

We do not want to give users the ability to change their emails in the case of a security breach, as that could potentially make them lose access to their account. It would be more convenient for all parties involved to simply ask an administrator to change the email, after verifying ownership of the account, or alternatively close the account if its email address is no longer in use, and create a new one and transfer the data over.

After editing the desired fields, the new entries are saved to temporary variables. Pressing 'submit' these variables overwrite existing firebase entries. Alternatively, the edits can also be cancelled, wiping the temporary variables, and the data reverts back to its initial state.

A dark rectangular button with the text "SUBMIT" in white, bold, uppercase letters.A dark rectangular button with the text "CANCEL" in white, bold, uppercase letters.

On the lower part of the page, the users can also find the 'My Projects' section which lists existing projects that their account is associated with, these entries provide the project name, project description, and other members of the project. These entries provide a quickly accessible overview for the projects the user is involved in.

My projects



Project test

Project description

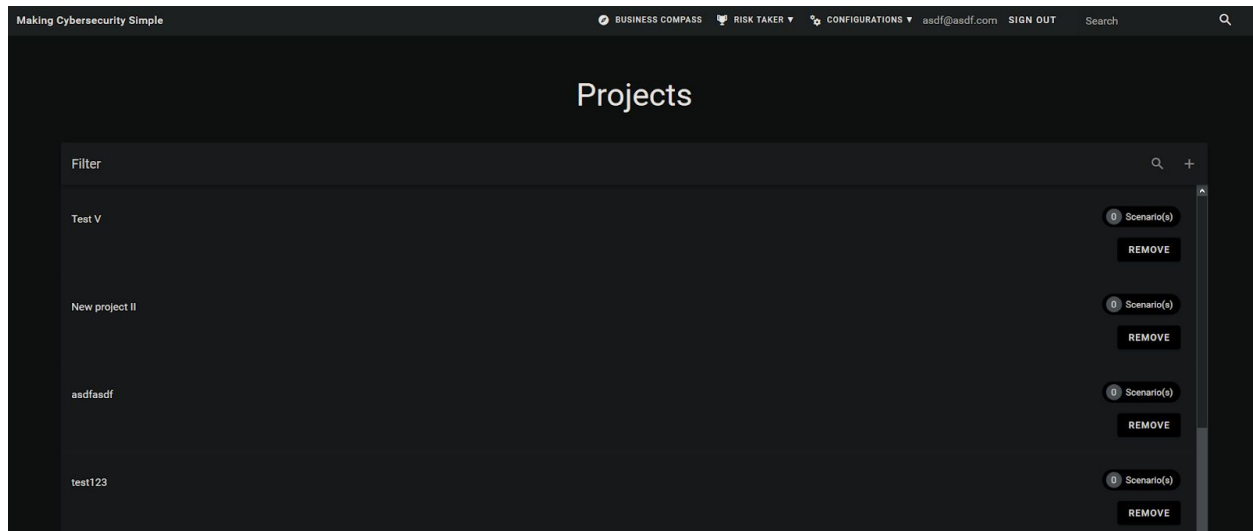
hohoho@christmas.com

21707741@student.uwa.edu.au

Projects

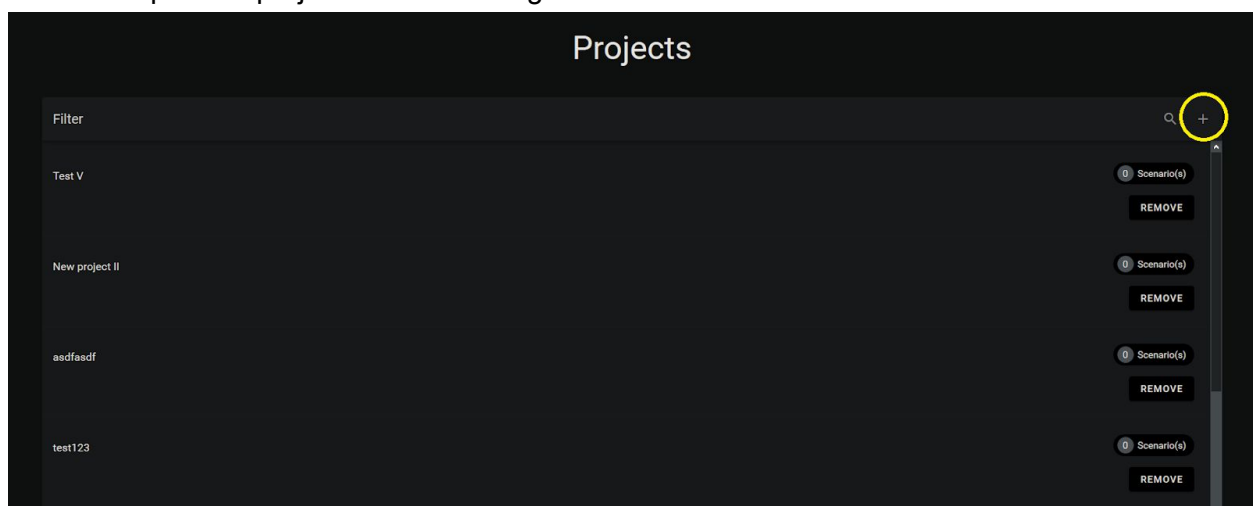
User Projects

The projects that the user is currently a part of can be accessed from the *Project Listing* page which is accessible from the *Risk Taker* drop down. All projects the user is the manager of or a member of will be displayed there.

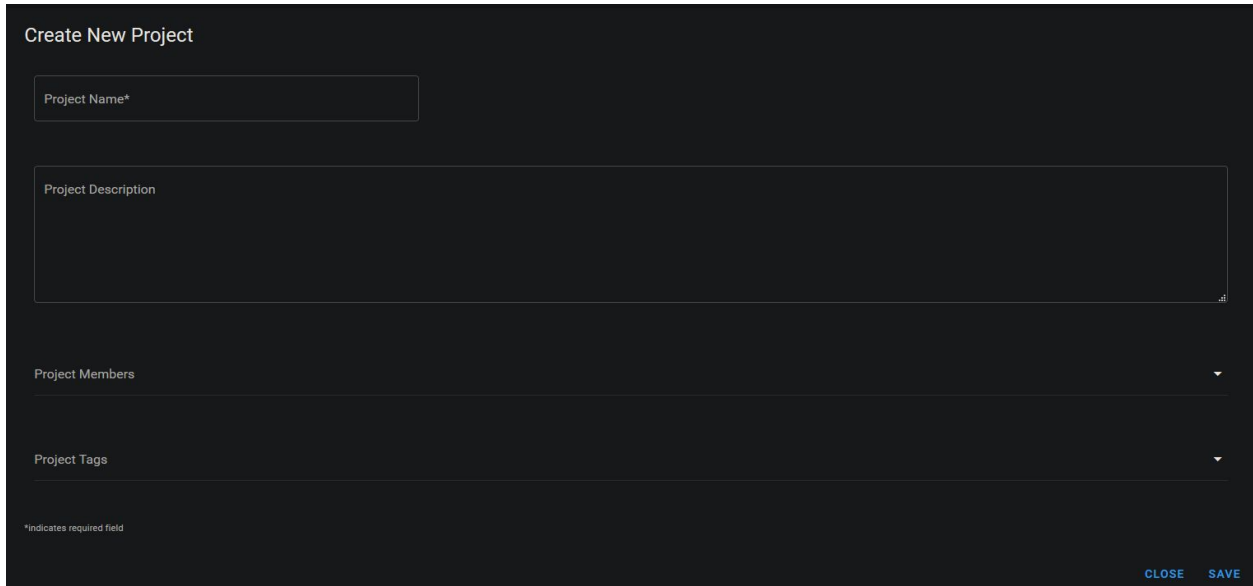


Adding Projects

All users are allowed to create a project. The project details include: Name, Description, Team Members, Project Manager and 0 or more scenarios. The project creator automatically becomes the project manager of that project. To create a new project, the user must provide information for all required project details. Each user can create multiple projects. New projects can be created from the *Project Listing* page accessible from *Risk Taker* drop down. The '+' icon can be clicked to open the project creation dialog.



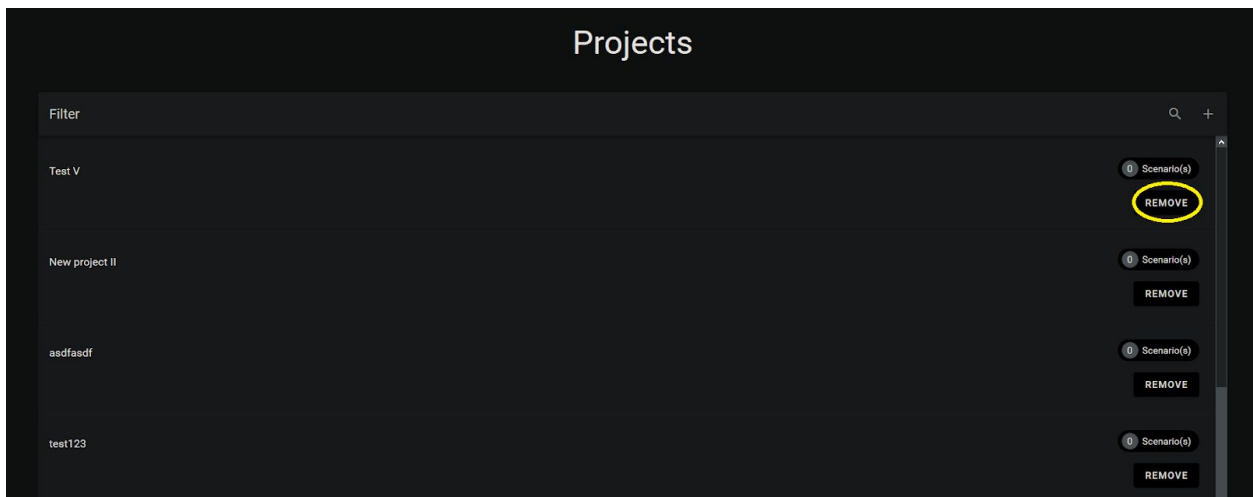
To create a new project, the user must specify the project's name and description. Other users within the same organisation can be added to the project through the *Project Members* field. The *Project Tags* field can be used to tag the project with related topics. The tags are used to link the project with related news articles.



The 'Create New Project' form is a dark-themed interface. It features a title 'Create New Project' at the top left. Below the title are four input fields: 'Project Name*' (a single-line text box), 'Project Description' (a large multi-line text area), 'Project Members' (a dropdown menu), and 'Project Tags' (a dropdown menu). A small asterisk note '*Indicates required field' is located at the bottom left. At the bottom right, there are two buttons: 'CLOSE' and 'SAVE'.

Deleting Projects

Projects can be deleted from the *Project Listings* page accessed from the *Risk Taker* drop down.

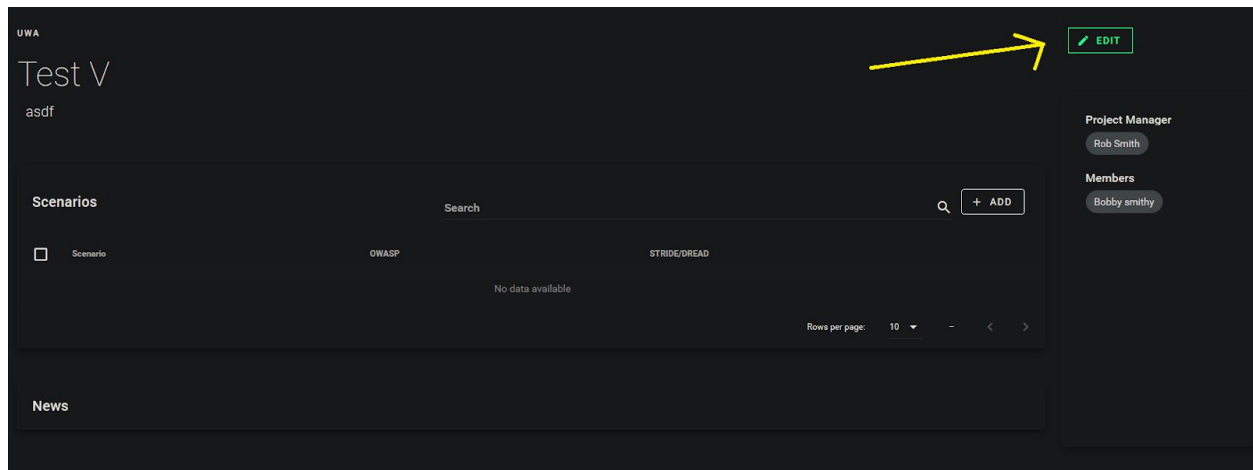


The 'Project Listings' table is a dark-themed interface with the title 'Projects' at the top center. It features a 'Filter' bar at the top left with a search icon and a plus sign. The table has four rows of project data. Each row includes a project name, a 'Scenario(s)' count, and a 'REMOVE' button. The 'REMOVE' button for the first row is circled in yellow.

Filter	Scenario(s)	REMOVE
Test V	0	REMOVE
New project II	0	REMOVE
asdfasdf	0	REMOVE
test123	0	REMOVE

Editing Project Details

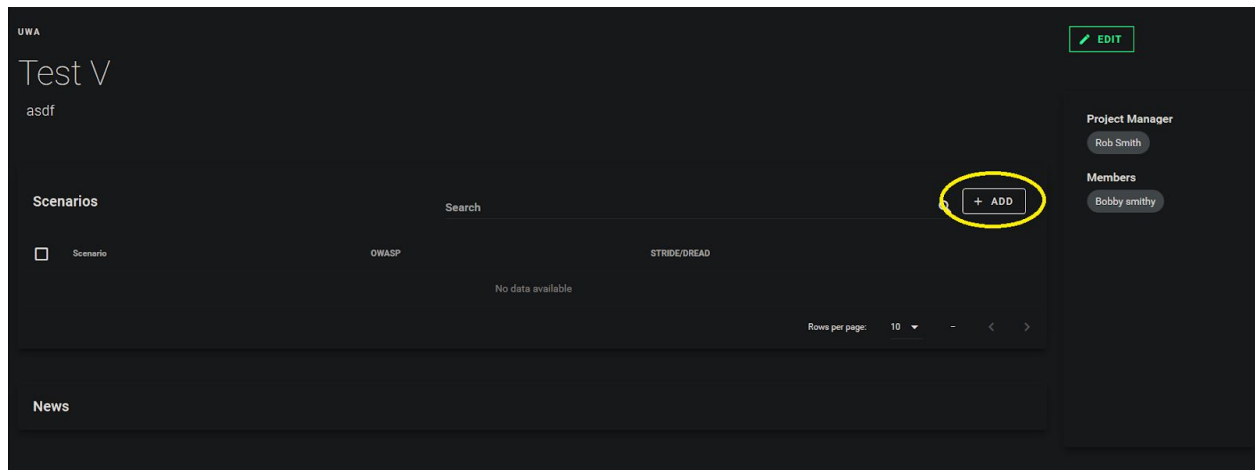
Project details can only be edited by the project manager of that project. The project edit dialog can be accessed from the *Project Home* page of that specific project. This page can be accessed by clicking on the specific project on the *Project Listings* page. The edit project dialog is accessed by clicking on the green *Edit* button on the top left corner of the page. The dialog allows the project manager to edit the name, description, members and tags of the project.



This screenshot shows the 'Edit Project' dialog. It has a dark theme. The 'Project Name*' field contains 'Test V'. The 'Project Description' field contains 'asdf'. The 'Project Members' section shows two members: 'asd@asd.com' and 'asdf@asdf.com'. The 'Project Tags' section shows two tags: 'Java' and 'Spring'. At the bottom right, there are 'CLOSE' and 'SAVE' buttons. A small note at the bottom left states '*Indicates required field'.

Adding Scenarios

Each project can have 0 or more scenarios. Each scenario is a situation in which risk will be analysed. Scenarios can be added to the project from the *Project Home* page for that project. All members of the project can create new scenarios. Scenario details include: Name, Description, OWASP risk assessment, a derived risk rating and risk matrix. New scenarios can be added by clicking the *ADD* button on the *Project Home* page. It opens a new scenario creation dialog. Users must enter a scenario name and optionally include a description or complete an OWASP risk assessment for the scenario.



Scenario Risk Assessment

Scenario Name*

Project Description

		OWASP					STRIDE/DREAD		
🔍 THREAD AGENT FACTORS [0]	Skills Required	1	3	4	6	9	High Likelihood		
	Motive	1		4		9	Medium Likelihood		
🔒 VULNERABILITY FACTORS [0]	Opportunity		4	7		9	Low Likelihood		
	Population Size	2	4	5	6	9			
📄 TECHNICAL IMPACT FACTORS [0]		OVERALL LIKELIHOOD SCORE: 0						<div>Low ImpactMedium ImpactHigh Impact</div>	
		OVERALL AVERAGE IMPACT SCORE: 0							
📄 BUSINESS IMPACT FACTORS [0]		OVERALL RISK SEVERITY: 0							

CLOSE SAVE DELETE

Editing & Deleting Scenarios

Basic users can also edit existing scenarios for projects they are a part of. Scenarios can be edited by clicking on the scenario in the scenario section on the *Project Home* page. It opens a similar dialog to adding new scenarios, except it allows the user to edit an existing project. Scenarios can be deleted from the project using the same dialog that is used to edit scenarios.

UWA

William Lassell II

William Lassell, FRS FRSE FRSL FRAS (18 June 1799 – 5 October 1880) was an English merchant and astronomer.[1][2][3][4][5][6]
He is remembered for his improvements to the reflecting telescope and his ensuing discoveries of four planetary satellites.
Contents The

Scenarios

Search

Scenario	OWASP	STRIDE/DREAD
<input type="checkbox"/> Life	9,281,25	0
<input type="checkbox"/> Hacking	0	0
<input type="checkbox"/> Life III	47,4375	0
<input type="checkbox"/> Life II	32,625	0

Rows per page: 10 1-4 of 4 < >

News

Dynamic content to v-expansion-panel-content

Project Manager

Rob Smith

Members

Jeff Smith Hello there

Bobby smithy test 123

Kiritsuma :3

Scenario Risk Assessment

Scenario Name*

Project Description

William Lassell was born in Bolton, Lancashire. He was educated first in Bolton then at Rochdale Academy.[7] After the death of his father, he was apprenticed from 1814 to 1821 to a merchant in Liverpool. He then made his fortune as a beer brewer, which enabled him to indulge his interest in astronomy. He built an observatory at his house "Starfield" in West Derby, a suburb of Liverpool. There he had a 24-inch (610 mm) aperture metal mirror reflector telescope (aka the "two foot" telescope), for which he pioneered the use of an equatorial mount for easy tracking of objects as the Earth rotates. He ground and polished the mirror himself, using equipment he constructed. The observatory was later (1854) moved further out of Liverpool, to Bradstone.

OWASP

STRIDE/DREAD

THREAD AGENT FACTORS [2.75]

Skills Required 1 3 4 6 9

Motive 1 4 9

VULNERABILITY FACTORS [0]

Opportunity 4 7 9

Population Size 2 4 5 6 9

TECHNICAL IMPACT FACTORS [6.75]

OVERALL LIKELIHOOD SCORE: 2.75

OVERALL AVERAGE IMPACT SCORE: 3.375

BUSINESS IMPACT FACTORS [0]

OVERALL RISK SEVERITY: 9,281,25

Risk Assessment Table:

Likelihood	Low Impact	Medium Impact	High Impact
High Likelihood	Orange	Red	Purple
Medium Likelihood	Green	Orange	Red
Low Likelihood	Blue	Blue	Orange

Life

Close Save Delete

Project News

Security news articles related to the project can be accessed from the *News* section of the *Project Home* page. It shows all related news articles contained in *The Risk Taker's* news feed that are related to this project's tags. The news section displays a brief summary of each news article as well as a link to the full article.

The screenshot shows the Project Home page with a dark theme. At the top left, it says 'UWA'. The main header area displays 'William Lassel II' with a bio: 'William Lassel, FRS FRSE FRSL FRAS (18 June 1799 – 5 October 1880) was an English merchant and astronomer.[1][2][3][4][5][6] He is remembered for his improvements to the reflecting telescope and his ensuing discoveries of four planetary satellites. Contents The'. There is an 'EDIT' button in the top right. Below the header is a 'Scenarios' table with columns for 'Scenario', 'OWASP', and 'STRIDE/DREAD'. The table lists four scenarios: Life, Hacking, Life III, and Life II, each with a checkbox and numerical values in colored circles. A search bar and '+ ADD' button are on the right. At the bottom, a 'News' section is highlighted with a yellow box, containing three news items with expandable arrows. On the right side, there is a 'Project Manager' section with 'Rob Smith' and a 'Members' section with 'Jeff Smith', 'Hello there', 'Bobby smithy', 'test 123', and 'Kirisuna :3'.

Scenario	OWASP	STRIDE/DREAD
<input type="checkbox"/> Life	9.28125	0
<input type="checkbox"/> Hacking	0	0
<input type="checkbox"/> Life III	47.4375	0
<input type="checkbox"/> Life II	32.625	0

Rows per page: 10 1-4 of 4

News

- booking.com website sends email warning about potential security breach on some accounts. ▾
- Problems with Java Spring ▾
- Austria's foreign ministry is facing a 'serious cyberattack' ▾

Project Manager
Rob Smith

Members
Jeff Smith Hello there
Bobby smithy test 123
Kirisuna :3