

ERP Ranger Application



User Manual

Developed for EPI-USE ERP by The Tenacious Technicians

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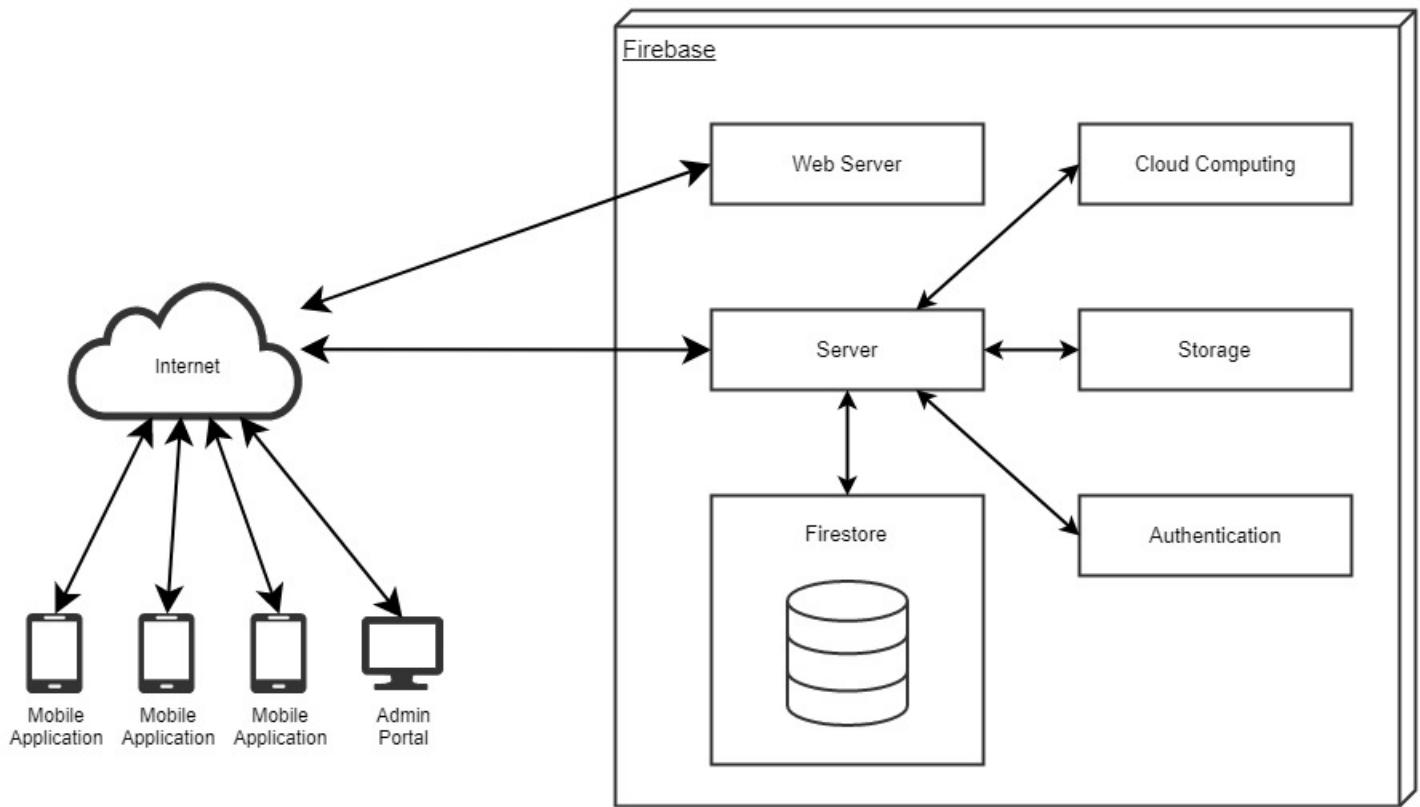
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1 Description

The purpose of the Ranger application is to improve the safety and security of nature reserves and the animals inside. This is done by rewarding volunteer rangers with points which they can later exchange for rewards in the form of merchandise or travel vouchers. Points are awarded to rangers for completing certain actions and passing certain checkpoints whilst on patrol. The application will also provide admins with notifications and the ability to monitor the reserve and the rangers whilst they are on patrol.

2 System Configuration



System Configuration Diagram.

The picture above gives a brief overview of how the system works in terms of authentication and handling requests for various actions.

3 Installation

The steps for the current installation process are as follows:

1. Go to the following link: <https://github.com/cos301-2019-se/ERP-Ranger-Mobile-Application>
2. Download the APK.
3. Copy it to your android device.
4. Enable installations from untrusted sources on your device.
5. Navigate to the APK via the file manager and install it.

4 Getting Started

Getting started with the mobile application:

- Upon opening the application the user will be greeted with a login screen unless they have logged in once before.

- After login the user will be presented with the home screen and from here they can start performing actions like starting a patrol, managing their next shift and reporting a incident, or viewing their profile and the leaderboard.
- Clicking on "Shifts" will allow rangers to: Book shifts by specifying a specific date and time that they wish to patrol said park specified upon login.
- Clicking on "Reports" will allow rangers to: Select a report type from the supplied drop down list, add pictures to said report and add a short description of the report that the ranger wishes to submit.
- Clicking on "Start Patrol" will start a patrol and change the button to end patrol, the timer will also start to run and display the current length of the patrol.
- Clicking on "Map" will allow rangers to: view the map and activate markers while they are out on patrol.
- Clicking on "Leaderboard" will take the user to a list of rangers that have the highest number of points earned.
- By opening the drawer the user can view any of the previously mentioned screens and also view their profile.
- Finally the ranger can close the application or they can logout and close.

Getting started with the web application:

- Open browser and navigate to the relevant url. Upon opening the admin or rangers will be greeted with a login screen.
- After logging in admins and rangers will each be directed to their dedicated areas.
- Admin will be directed to their dashboard which shows them an overview of the park, from here they can add and monitor rangers as well as manage the reserve's settings.
- Rangers will be directed to their profile where they can manager their shifts as well as view their current amount of points and possible rewards.
- Finally they can close the web application or logout and close.

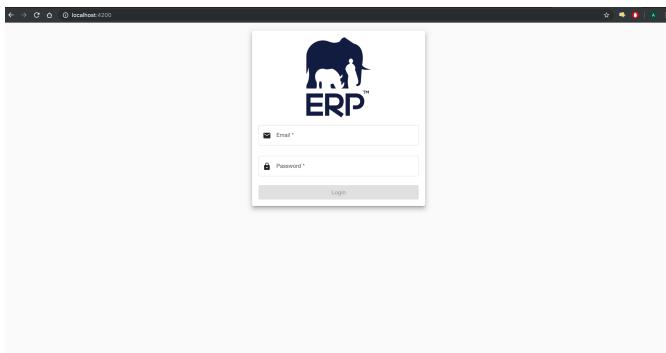
5 Using the system:

After successful login, a ranger will be prompted with the main dashboard where rangers will have access to a variety of features in the centre of the page. Some of these features include: Submitting reports, monitoring shifts and logging feedback. By clicking on one of these, it will take you to the respective screen. On the submitting reports screen, rangers will be able to submit any sightings that they might have encountered on their patrol. The monitoring shifts screen will allow rangers to keep track of time spent on their respective shifts. The logging feedback screen will enable rangers to log any feedback at the end of their shift.

6 Administrative Side

6.1 Logging in

Note : All following features require the user to be logged in as an admin



6.2 Viewing Rangers

To view All rangers, select Rangers from the dashboard on the left.

Name	Number	Email	Role	Points	Remaining Points	Edit	Delete	
Olefin	074415044	olefin@olefin.com	User	Admin	5	0		
Brenton	061180072	brenton@brenton.com	User	Ranger	0	0		
Hedberg	060705021	hedberg@hedberg.com	User	Ranger	0	0		
Kane	061121204	kane@kane.com	User	Ranger	17	0		
Peter	060240508	peter@peter.com	User	Admin	0	0		
Jefferson	061220000	jefferson@jefferson.com	User	Admin	0	0		
Adam	060300008	adam@adam.com	User	Admin	0	0		
TNT	061504112	tnt@tnt.com	User	Ranger	20	0		
Test Admin	060240508	admin@private.com	User	Admin	0	0		
Master	061214007	ranger@ranger.com	User	Ranger	30	30		
Johan	02702454508	johan@johan.com	User	Ranger	010	318		

6.3 Adding a ranger to the system

To navigate to the this screen, select Rangers from the dashboard on the left and then select the Add ranger button located under the list of users. Once on the screen input the details of the ranger in the relevant fields and click Register. The fields will be reset for more rangers to be added as required.

New User

Email: this@email.com

Password:

Name: Temp Name:

Number: 012 345 5653

Register Reset

6.4 Editing a ranger

To navigate to the this screen, select Rangers from the dashboard on the left and then select the pencil icon in the Edit column.

Once on the screen input the details of the ranger in the relevant fields, select a file from your computer using the 'Upload Picture' button and click Apply Changes.

Edit User
Johan Nel

Email: jnel@jnel.com

Name: Johan Nel

Number: +2782454508

Role: User Ranger

Photo:

Remaining Points: 010

Apply Changes Reset

6.5 Viewing Rewards

To view All Rewards, select Rewards from the dashboard on the left.

The screenshot shows the ERP system's dashboard with the 'Rewards' section selected. On the left sidebar, there are several menu items: Dashboard, Rewards, Shifts, Shift Feedback, Reports, Import Notifications, Rangers, Authors, and Ranger Positions. Under the 'Rewards' section, there is a sub-menu with 'Add Reward'. The main content area displays a table with three rows of reward data:

Name	Cost	URL
BIG ELEPHANT WITH TREE BY CLIVE WALKER	100	https://www.ermmercantile.com/collections/studio/products/copy-of-clive-walker-big-five-buffalo-print
Miles back with a mission	400	https://www.ermmercantile.com/collections/studio/products/miles-back-with-a-mission
copyofCliveWalker	200	https://www.ermmercantile.com/collections/studio/products/copy-of-clive-walker-big-five-buffalo-print

6.6 Adding a reward to the system

To navigate to the this screen, select Rewards from the dashboard on the left and then select the 'Add Reward' button located under the list of users. Once on the screen input the details of the reward in the relevant fields and click Add. The fields will be reset for more rewards to be added as required.

The screenshot shows the 'Add Reward' form. The left sidebar has the same navigation as the previous screenshot. The main form has the following fields:

- Name: Name Here
- Cost: 100
- URL: http://examplelink.com
- Image URL: http://examplelink.com/imgurl

At the bottom are 'Add' and 'Reset' buttons.

6.7 Editing a reward

To navigate to the this screen, select Rewards from the dashboard on the left and then select the pencil icon in the Edit column.

Once on the screen input the details of the reward in the relevant fields and click Apply Changes.

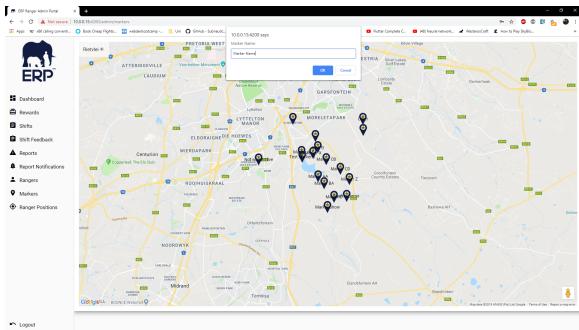
The screenshot shows the 'Edit Product' form for 'BIG ELEPHANT WITH TREE BY CLIVE WALKER'. The left sidebar is identical to the previous screenshots. The main form has the following fields:

- Name: BIG ELEPHANT WITH TREE BY CLIVE WALKER
- Cost: 100
- URL: https://www.ermmercantile.com/collections/studio/products/copy-of-clive-walker-big-five-buffalo-print
- Image URL: (empty)

At the bottom are 'Add' and 'Reset' buttons.

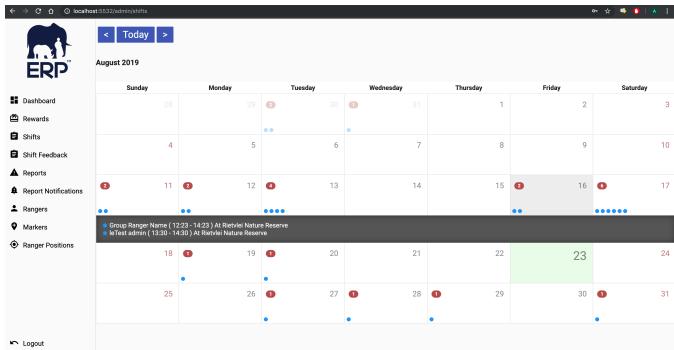
6.8 Adding markers

To access this page, select Markers from the navigation on the left and you will be navigated to this screen. Once on this page you will see a large map, to add a marker, find the place you want a marker(You can zoom in for accuracy by using the scroll wheel) then click on this spot. A prompt will appear asking for you to insert the marker name. Type in an appropriate name and hit OK. You should now see your marker appear on the map.



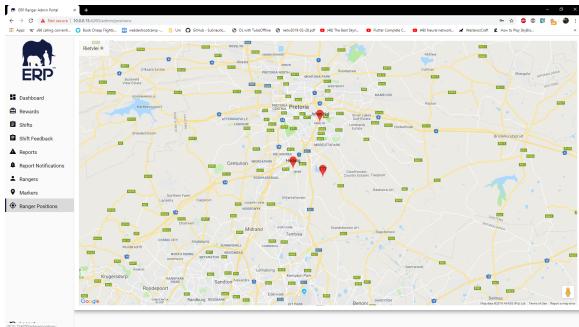
6.9 Viewing Upcoming shifts

Using the navigation bar on the left select Shifts. This will take you to a screen showing a calendar. To see different months, use the left and right arrows above the calendar or click on today to bring you back to the current month. To view all shifts on a particular day, click on that day and these will all be listed including the time of the shift, the name of the ranger for that shift as well as the park the shift will be in.



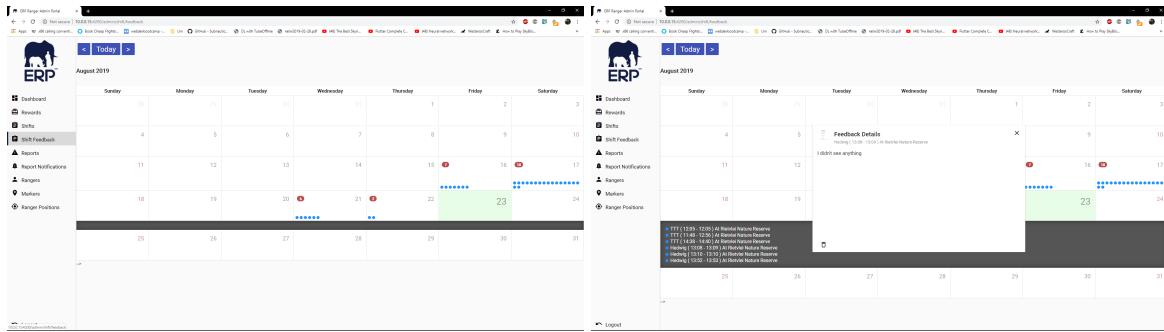
6.10 View current ranger positions

Click on Ranger Positions in the navigation bar on the left and then you can view ranger positions as markers on a map.



6.11 Viewing Shift feedback

Using the navigation bar on the left select Shift Feedback. This will take you to another screen with a calendar. As before navigate between months using the arrows above and the button saying Today, which will bring you to the current month. To view the feedback of a particular shift, select the day of the shift and then on the listen shift itself. An overlay will appear displaying the shift details. To hide the overlay, click on the cross in the upper right corner.



6.12 Managing Notifications

This page is accessed using the notification drawer. This will allow users to manage different types of reports and what notifications are sent out once such a report is logged. This page also has a second tab that allows you to assign notifications to different admins to receive different notifications.

Report Types		Report Recipients					
Importance	Type	SMS	Email	Web	3rd Party	Edit	Delete
High	Broken Fence	X	✓	X	X	Edit	Delete
Low	Damage to property	X	✓	X	X	Edit	Delete
Low	Other	X	✓	X	X	Edit	Delete
High	Intruder	✓	✓	X	X	Edit	Delete
Low	Alien invasion	✓	X	X	✓	Edit	Delete
High	Harmed animal	✓	✓	X	X	Edit	Delete

Report Types		Report Recipients			
Name	User	Type	Edit	Delete	
Rietvlei Nature Reserve	Johan Nel	Harmed animal	Edit	Delete	
Rietvlei Nature Reserve	Pet Puppies	Intruder	Edit	Delete	

6.13 Dashboard

The dashboard is where admins land after they log in. This shows them a brief overview of the park including all the open reports and rangers that are on patrol

Rietvlei Nature Reserve		
Open Reports		
Importance	Type	View
High	Harmed animal	More Info
Low	Other	More Info
High	Intruder	More Info
High	Harmed animal	More Info
Low	Other	More Info

Rangers On Patrol		
Name	Number	Email
Group-Ranger Name	0876541212	rietvleivacuettchencen@gmail.com
Infra admin	0821230055	test@test.com
Johan Nel	+27826545158	jnel@koral.com
Heidieg	0987654321	heidieg@test.com

7 Ranger web side

7.1 Ranger profile

Using the navigation bar on the left while logged in as a ranger will open the profile page of the currently logged ranger, displaying all the ranger's details and giving the ranger the option to edit their existing details.

This screenshot shows the 'Ranger profile' page. At the top, there's a sidebar with a logo of an elephant and the letters 'ERP'. Below it are three buttons: 'Profile', 'Leaderboard', and 'Ranger Rewards'. The main content area has a section titled 'Achievements' with a table. The table has two columns: 'Achievement' and 'Description'. There are 10 rows of achievements, each with a small icon. Below the table, it says '20000+ users have earned at least one achievement'. At the bottom, there's a button labeled 'Edit Ranger details'.

7.2 Ranger leaderboard

Using the navigation bar on the left while logged in as a ranger will open the current leaderboard page, allowing to compare overall points scored by each individual ranger.

This screenshot shows the 'Leaderboard' page. The sidebar on the left is identical to the profile page. The main content area is titled 'Ranger Leaderboard' and contains a table with seven rows. Each row has a rank, a ranger's name, and their score. The rangers listed are Johan Neil, Master Yoda, TTT, Eric, New guy Test, Hedwig, and Steve Orlo.

7.3 Ranger rewards

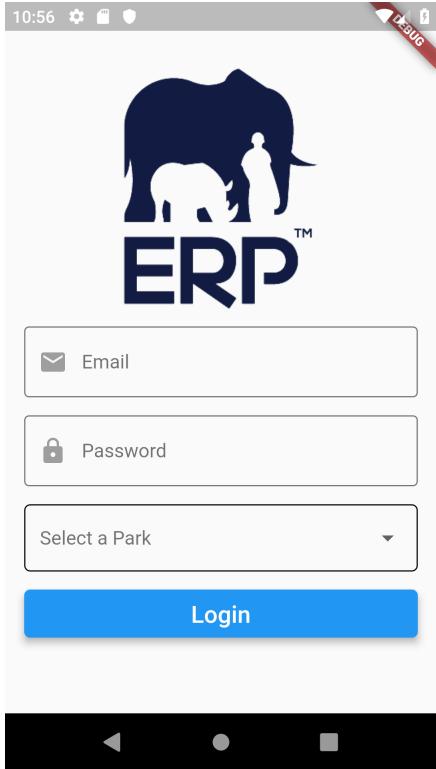
Using the navigation bar on the left while logged in as a ranger will open the ranger rewards screen, showcasing rewards that a ranger currently qualify for should they have enough points and showcasing rewards that they can work towards.

This screenshot shows the 'Ranger rewards' page. The sidebar on the left is identical to the previous pages. The main content area has two sections. The first section is 'Ranger Details' which shows the ranger's name (Eric), phone number (0011231234), email (eric@erptest.com), point balance (17), and points remaining (0). The second section is 'Rewards available:' which lists three items: 'BIG ELEPHANT WITH TREE BY CLIVE WALKER - 160 Points', 'Mata Sock with a mission - 400 Points', and 'Hedgehog Rhino - 200 Points'. Below this, it says 'Rewards not yet available:'.

8 Application Side

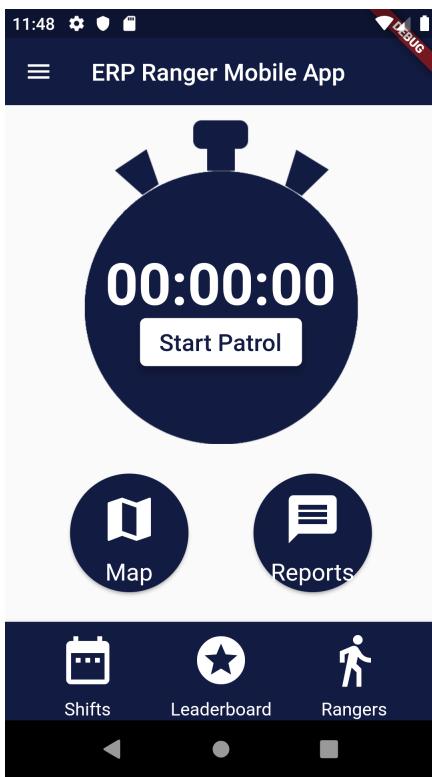
8.1 Logging in

Using the application is very straight forward. When you open the application, you will be presented with 2 input fields for an email and a password. Once a user's logged in, their session's cached and rangers will stay logged in until they decide to log out. Rangers will also have the option of selecting which park they which to patrol from the provided drop down list on the login page.



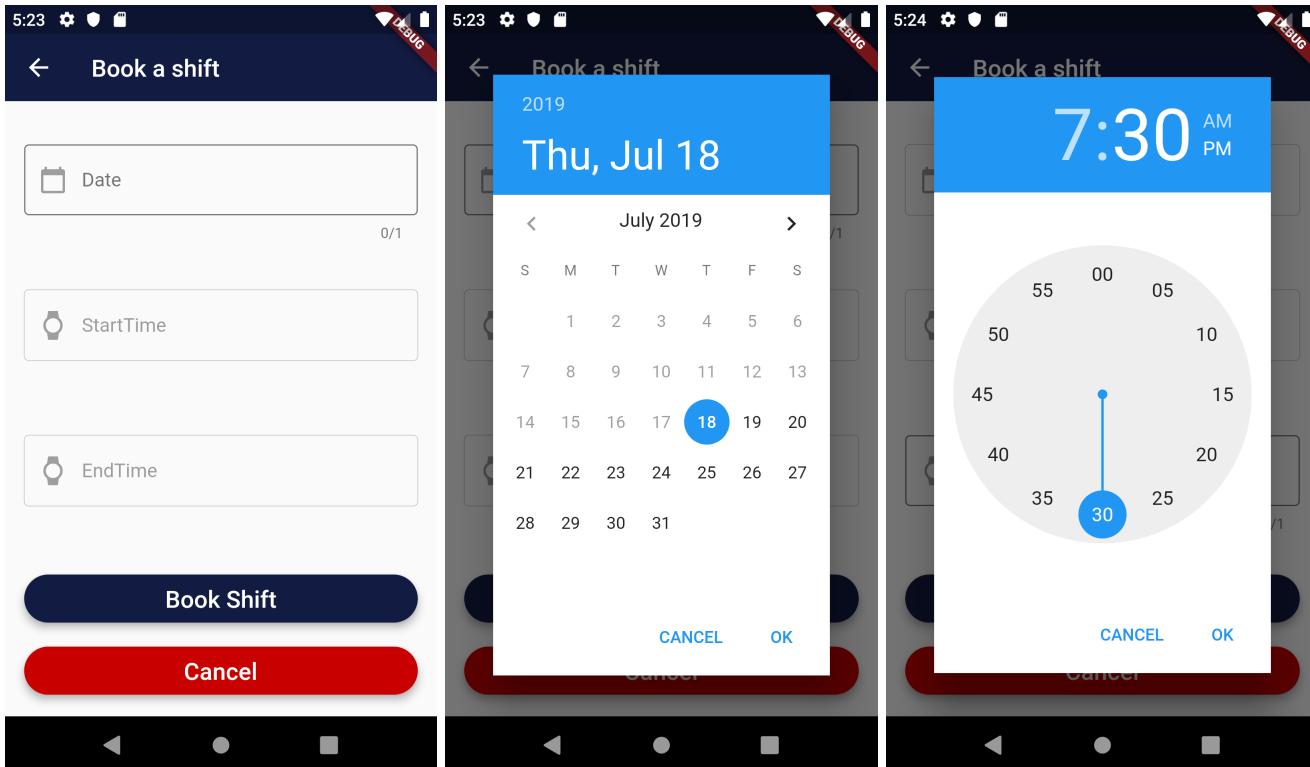
8.2 Dashboard

Upon successful login the user will be greeted by a series of options such as the ability to book a shift, report an incident, log feedback on their current patrol and the option to view their profile or the current leaderboard.



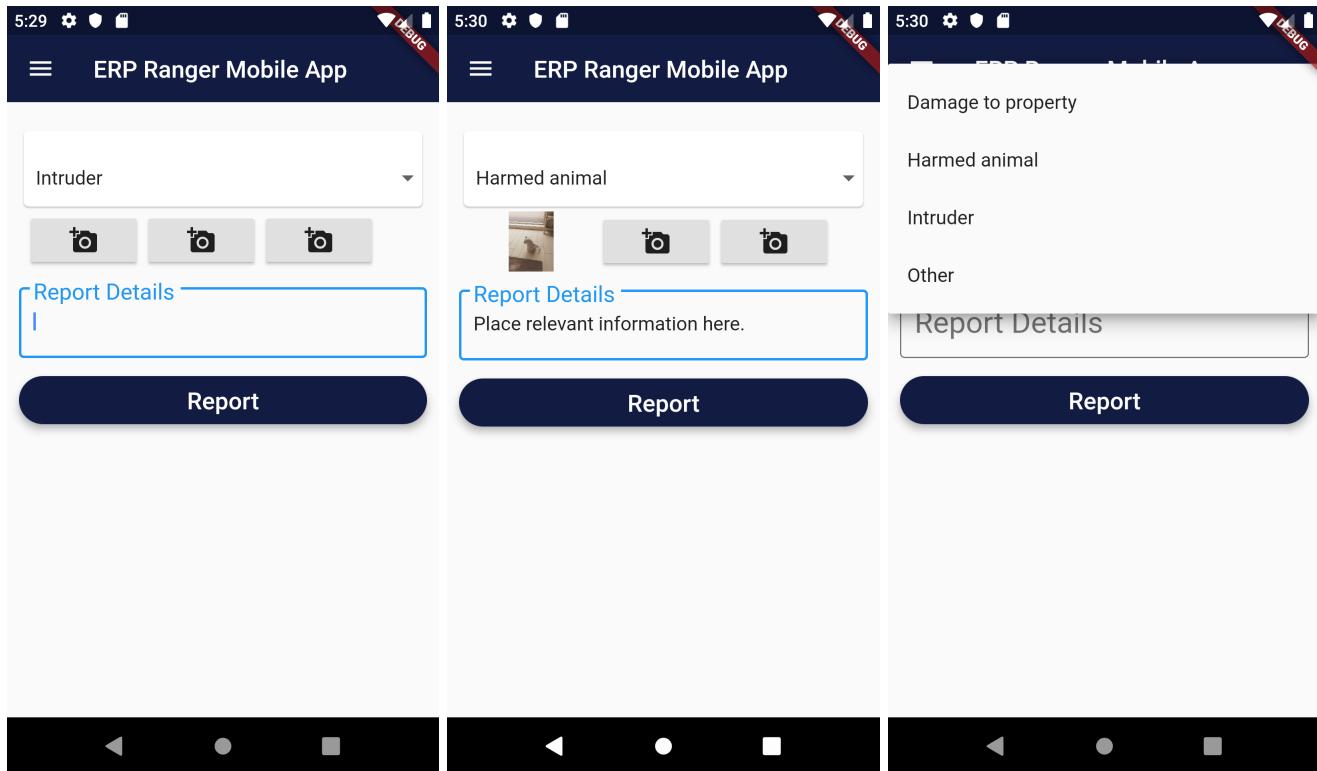
8.3 Booking a shift

In order to book a shift navigate to the book shift screen by tapping the shifts tile on the dashboard. First select a date by tapping on the box that says Date and selecting the date which you would like to book a shift. Next select a starting time on that date by tapping on the now available box that says start time. Finally specify an ending time by tapping on the now available box that says end time. The maximum length of a shift is 8 hours. When all the relevant information has been entered the shift can be booked by tapping the book shift button.



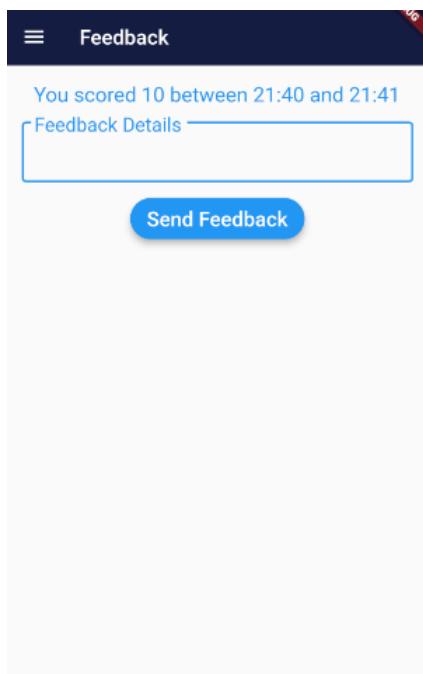
8.4 Submitting a report

In order to report an incident navigate to the report screen by tapping the reports tile on the dashboard. First the type of incident must be selected. An optional short description with additional information can be added in the text box provided by tapping on it. Up to 3 pictures can be added of the incident by tapping the relevant camera icons above the optional description box. When the incident report is ready to be sent, the send report button can be tapped.



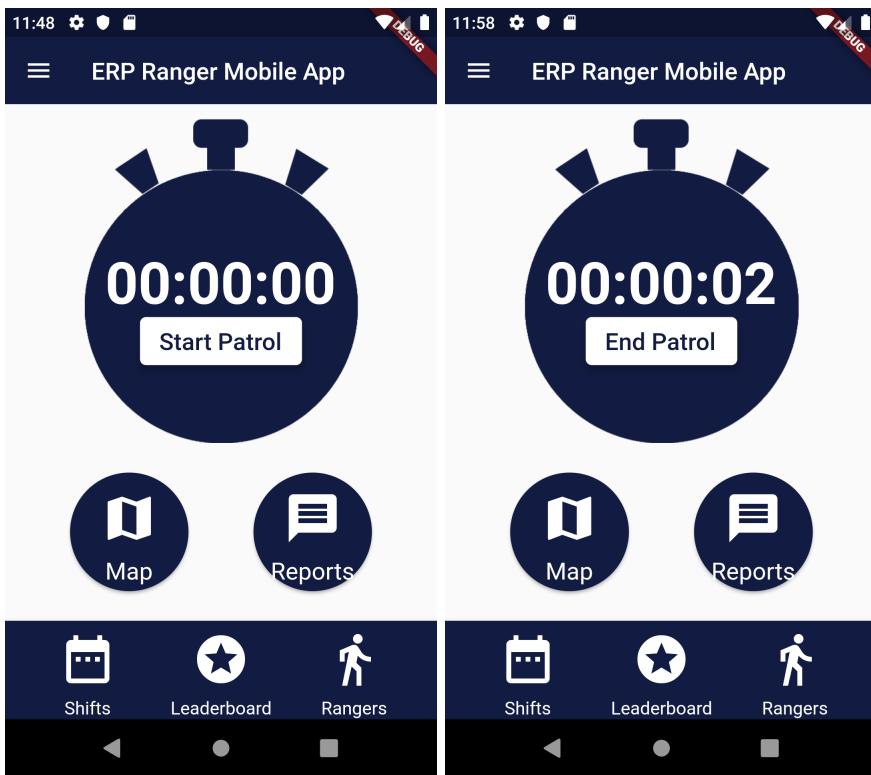
8.5 Providing Feedback to a patrol

In order to log feedback on a patrol navigate to the feedback screen by tapping the feedback tile on the dashboard. This screen will show the current points scored and the length of your patrol. Enter the feedback details in the provided text box and click the Send Feedback button to submit your feedback.



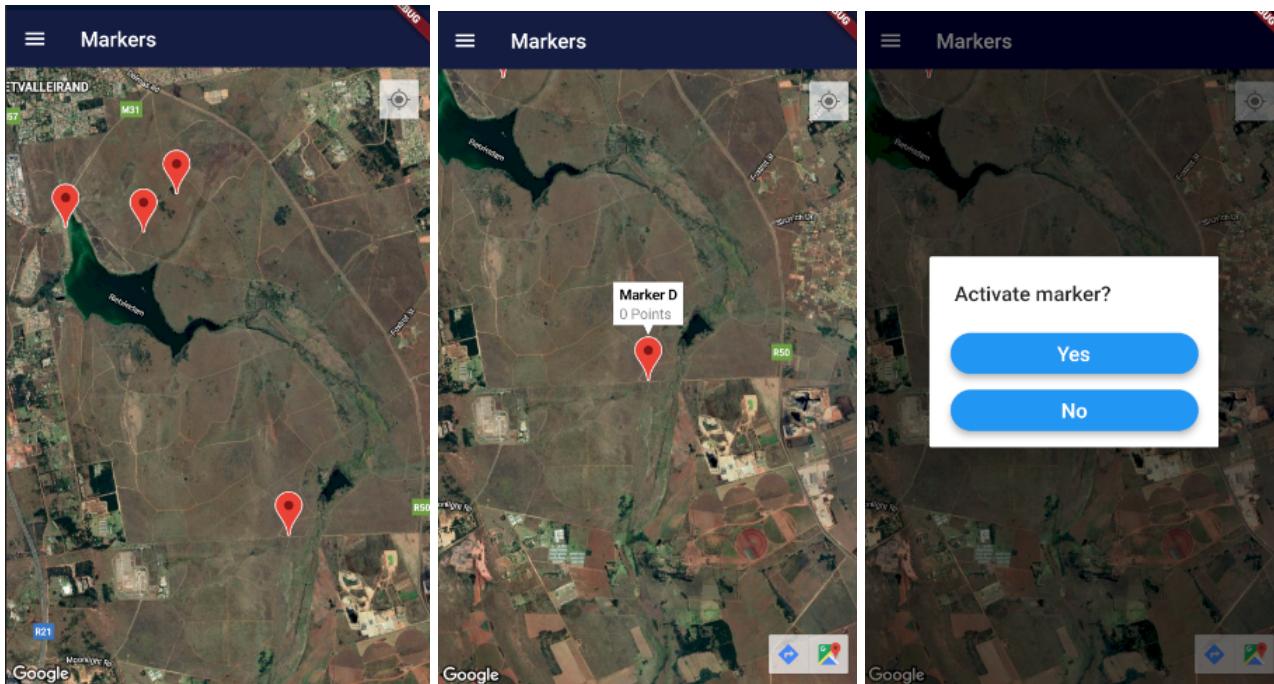
8.6 Perform a patrol

In order to start a patrol click the Start Patrol button to begin the patrol, the timer will start counting until the patrol is ended. After the patrol was started, the start patrol button will change to an End Patrol button, clicking this will open the feedback screen.



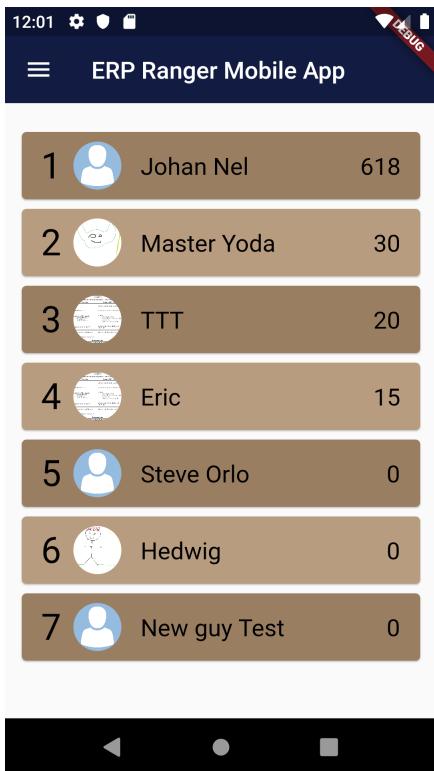
8.7 Activate a marker

In order to activate a marker navigate to the marker screen by tapping the marker tile on the dashboard. Find and select the desired marker. Click on the marker's description to open the Activate Marker popup and then click Yes. The marker description provides the marker name and the points it is worth. Clicking No on the Activate Marker popup will close the popup.



8.8 Leaderboard

A list of users with ordered by the most points earned are displayed as a means to track how well a user is doing by comparison to other users.



8.9 Profile

The profile screen displays all relevant information about the user. It also allows them to send a change password email to their specified email address, as well as change their given name.

