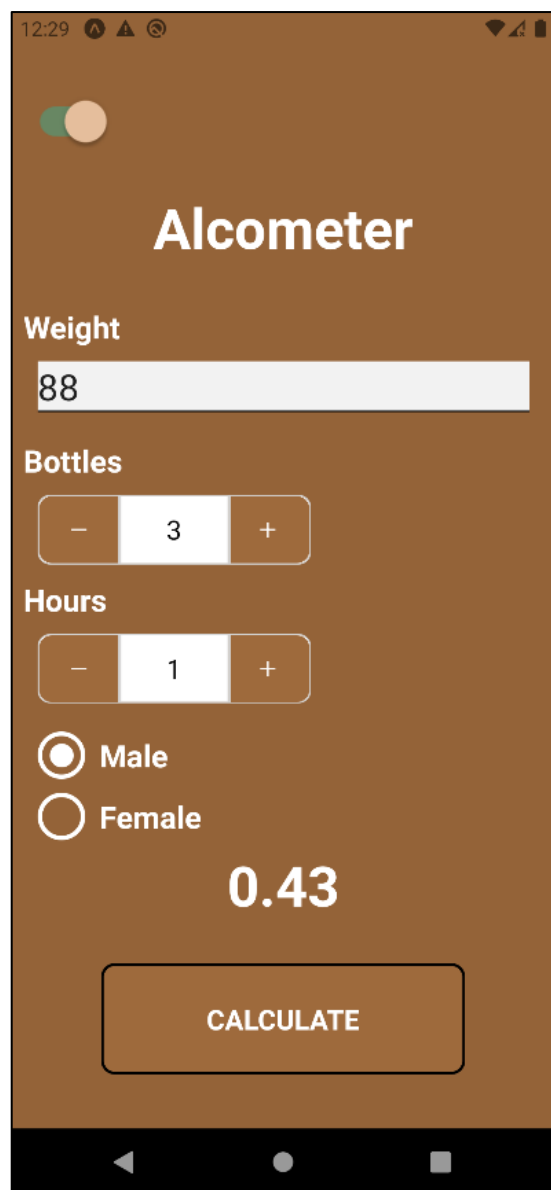
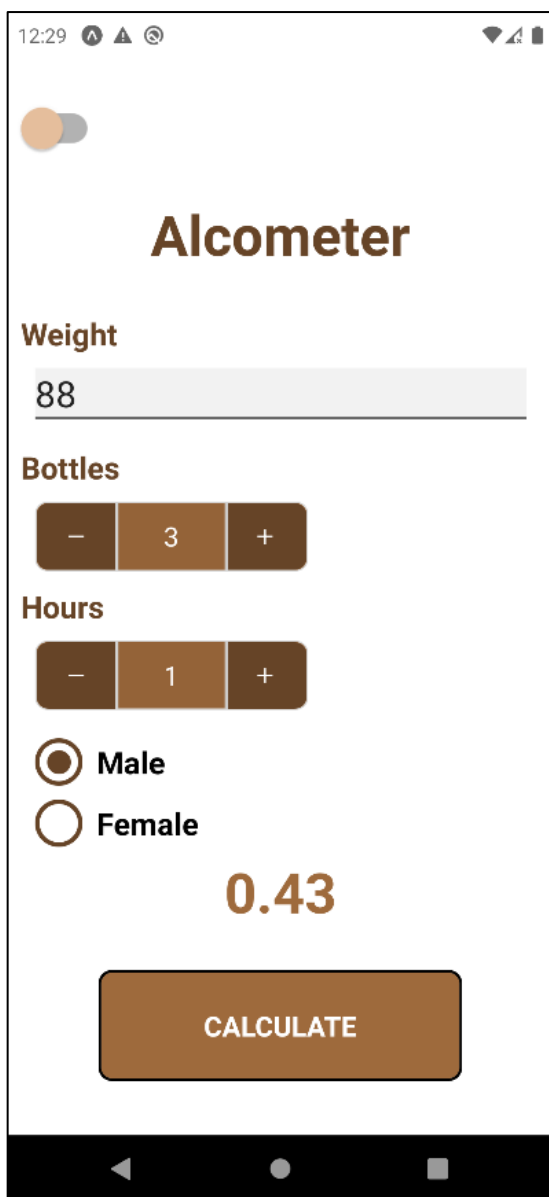


Exercise. Alcometer

Implement an app that calculates blood alcohol level based on weight, number of beer bottles drunk, time in hours and gender. Make UI of your own and select your colors but try to follow good UI practises and use the required components and features (image just an example, don't mimic). You may target your application for Android or iOS according to your choice. The additional challenge is to create toggle for changing the theme from light to dark by user.



Formula for calculating blood alcohol level is:

Litres: bottles * 0.33

Grams: litres * 8 * 4.5

Burning: weight / 10

Grams (left): grams – burning * time

Result (for male): grams / (weight * 0.7)

Result (for female): grams / (weight * 0.6)

For example, blood alcohol level for a male weighing 89 kilograms who has drunk 3 beer bottles in 1 hour is

$3 \times 0.33 = 0.99$ (litres)

$0.99 \times 8 \times 4.5 = 35.64$ (grams)

$89 / 10 = 8.9$ (burning)

$35.64 - (1 \times 8.9) = 26.74$ (grams left)

$26.74 / (89 \times 0.7) = 0.43$ (result for male)

Check out, that weight is given before calculation. If result is negative (long time and low amount of beer bottles), convert it to zero (since your blood alcohol level cannot be negative). Test out that your app works with real device (using Expo Go).

The number selectors are implemented by using this numeric input library available on <https://www.npmjs.com/package/react-native-numeric-input>

Wrap UI inside ScrollView so user can scroll it if needed.

Evaluation criteria

- Overall layout and appearance, using your own styles (color/fonts etc): 4 p
- Styles and colors are defined as separate file: 1 p.
- ScrollView is used as container: 1 p.
- Heading and labels: 2 p.
- Weight textinput (using proper keyboardType): 1 p.
- Time selection: 2 p.
- Bottles selection: 2 p.
- Gender radio buttons: 2 p.
- Changing the theme by using toggle: 7p
- Calculate button: 1 p.
- State variables: 5 p.
- Calculation: 10 p.
- Showing result: 1 p.
- No negative results: 2 p.
- Warning with alert if weight is not typed in: 2 p.
- Formatting result (two decimals): 1 p.
- Showing result using a colour (green, yellow, red) depending on the result: 3 p.
- Tested and working with real device (Android or iPhone): 3 p.

Total 50 p.