# Description

Ubitronics have discovered a gap in the market for a new Android app. This new app needs to be developed and built in Android Studio and be compatible with Pie (API 28) and above. There was originally a two-month deadline for the completion of the app, however, this has now been extended with an open-ended completion date. There are no external stakeholders that need to be informed for this project and the developer can use creativity and imagination to create the user interface, there is scope for any amount of research and additional features. The code should be structured in a clean, professional manner. with future consideration of Web and iOS development.

# Stakeholders

* Joe Cullen (Developer, Ubitronics)

There is only one named stakeholder in the project. This is due to the client also being the developer. This approach is usually not recommended as it limits the discovery and testing phases. To overcome this issue, a non-stakeholder will be asked to adopt the role and have input into key considerations, this will be:

* Catharine Kyle

# Target Auidence

The app is aimed for general consumption and should be family friendly. There is no requirement to sign-up or login to the app prior to use so there is no membership. The only limitation is Google requires an account to download the app via the Play store. The app should appeal to both male and female audiences of all ages. It will only need to be developed in English although there is no requirement to restrict the app to only this language.

# Aims

There are three main aims for the app to achieve. The finished app will see the successful implementation of these main features:

* A Clock
* A Timer
* A Stopwatch

# Goals

This project is aimed to simulate a scenario similar to that of a client. The main goals of the project are to:

* Achieve all aims stated above
* Improve skills in Android Studio and Java
* Create templates and documentation to use for future projects
* Launch a real app onto the Play store

# Tasks

The tasks below are not necessarily listed in order of required completion but will most likely be processed in a similar order.

* Setup Project in GitHub
* Create Android project
* Make simple interface with three tabs
* Populate tab one with a clock
  + Analog clock display
  + Digital clock display
* Populate tab two with a stopwatch
  + Starts at 0.00
  + Counts up when ‘Start’ is pressed
  + ‘Start’ changes to ‘Stop’ when activated
  + ‘Stop’ pauses the counter
  + ‘Split’ records a split time but carries on counting
  + Splits are shown in a table below the timer
  + ‘Reset’ puts the counter back to 0, Split times are not removed
  + ‘Clear’ wipes all the split times
* Populate tab three with a timer
  + Set a time in seconds, minutes or hours
  + Press ‘Start’ to activate the timer
  + The counter counts down to 0 from the time given
  + When it reaches 0 an alarm sounds / vibration if enabled.

# Constraints

The constraints for the project are:

* Developed in Android Studio
* Compatible with Android devices running Pie (API 28) and above
* Compliant with UK and EU laws
* Google Play store compliant

# Budget

There is no budget for this project. The app should be created in spare time and around other commitments.

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| Resource | Amount | Details |
| Ubitronics | £0.00 | Ubitronics are not funding the project but are happy to allocate man hours for no charge. |
| Client | £0.00 | The client has not provided additional funding for this project. |
| Personal | £0.00 | Joe Cullen is prepared to put time into the project and is not funding the project in any other way. |
| Other | £0.00 | There are no other sources of funding for this project. |