



## Assessment Task 1-1

**Qualification national code and title** ICT50220 - Diploma in Information Technology (Advanced Programming)  
**Unit/s national code/s and title/s** ICTPRG554 - Manage data persistence using noSQL data stores  
ICTPRG603 -

### Assessment type (☑):

- ☐ Questioning (Oral/Written)
- ☐ Practical Demonstration
- ☐ 3<sup>rd</sup> Party Report
- ☒ Other – Portfolio

### Assessment Resources:

College to supply:

- Computers running Windows 11
- Visual Studio
- Internet access
- Notes and links to online resources

### Assessment Instructions:

This is part one of the Portfolio assessment, a group of exercises testing the requirements of the cluster. The Portfolio is due in week 18, although students are encouraged to submit earlier so there is more time for resits.

This part acts as a reprise and introduction to mobile app development in Xamarin.

### Assessment Instrument:

#### Setup

Create a new Xamarin.Forms C# project in Visual Studio. The name of the project should include your name and the name of the exercise above.

#### Brief

Your job is to create a simple exercise tracker designed to encourage you to do an *average* of half an hour exercise per day for a year. It works like this...

- Every time the user does some exercise, he logs how many minutes into the app.
- The app calculates the average amount of time the user has exercised per day for the year. So, if the user opens the app on January 2nd and has only done ten minutes exercise on January 1st, the average per day for the year would be 5 minutes.
- If the amount of time is below 30 minutes, it should be displayed in red. Otherwise, it should be displayed in green.



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- The app should also display how many minutes of exercise the user will have to do per day to reach the goal of having done an average of thirty minutes per day. So, if the user gets half way through the year and has done no exercise, they would have to do an hour of exercise every day to reach an average of 30 minutes a day for the year.
- The app should display how many hours the user has done and how many they should have done. So, if they have done 8 hours on the 13th of January, it would display "8:00 hours out of 6:30".
- The app should have its information arranged nicely with the most important information most prominent.
- The app should reset the data on the first day of the year. You will need to manually set the date for your app to test this.
- The app should have a settings screen where you can change the background and text colours, change the time-per-day from half an hour to anything from five minutes to one hour, and manually reset the app's data.
- Finally, the app should save the user's data.

Note that this app will probably require you to do some research.

### Submission

Compress the solution folder and submit the compressed file via Blackboard under "Assessment" in the sidebar.