Student name:

Student ID:

SIT225: Data Capture Technologies

# Activity 4.1: Collect GPS data using mobile apps

Mobile phones have significant sensing capabilities such as GPS, acceleration and lux. In this task you will use existing free mobile apps to record some GPS data.

## Hardware Required

* A smartphone with GPS.

## Software Required

A web browser

Either Android Geo Tracker (<https://play.google.com/store/apps/detailsid=com.ilyabogdanovich.geotracker&hl=en> )

Or iOS myTracks (<https://itunes.apple.com/au/app/mytracks-the-gps-logger/id358697908?mt=8> )

You may install and try out any other app well as, as long as they can track GPS & export tracks to GPX format.

## Steps:

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| **Step** | **Action** |
| 1 | Track a journey using one of the installed mobile apps. It is best if your tracked journey spans at least 5 kilometers. Export your track to GPX format and save the file to your computer. Alternatively, you can email the .gpx file from your phone and download it to your computer  Question: Upload your .gpx file to Deakin Cloud and share the link here.  Answer: <Your answer> |
| 2 | Question: Open a browser on your computer and go to http://utrack.crempa.net/ . Upload your .GPX file to the site and click ‘Generate Report’. Take a screenshot and include it here.  Answer: <Your answer> |
| 3 | Question: What information can you see from the generated report?  **Note**: Depending on the app you use to record the GPS data, timestamps could be either in local time (that is AEST if you are in Melbourne) or sometimes it could be in UTC.  Answer: <Your answer> |

Activity 4.2: The Ethics of Data Gathering

Digital privacy is top of mind for many Australians. With weekly data breach scandals, individuals are becoming more aware and concerned about who has their data, and more importantly, who controls how that information is gathered, used and shared. In this task, you will summarise a blog post regarding what should Australian businesses know regarding the ethics of data gathering.

## Steps:

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| **Step** | **Action** |
| 1 | Question: Study the web material which can be found here (<https://www.insideinfo.com.au/business-intelligence-and-analytics/ethics-data-gathering-what-should-australian-businesses-know> ). Discuss data legislation in Australia and (un)ethical use of customer data. Reflect your viewpoint.  Answer: <Your answer> |

Activity 4.3: The ethical dilemma of self-driving cars

Self-driving cars are already cruising the streets today. And while these cars will ultimately be safer and cleaner than their manual counterparts, they can’t completely avoid accidents altogether. In this video, you will explore and reflect on how the car should be programmed if it encounters an unavoidable accident.

## Steps:

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| **Step** | **Action** |
| 1 | Question: Study the web material which can be found here (<https://www.youtube.com/watch?v=ixIoDYVfKA0> ). Reflect critically the ethical considerations and discuss to what extent you agree or disagree with justification.  Answer: <Your answer> |