Lab8. Aim:
In this lab you will learn how to add georeferenced point features from a table to your Arc project as a layer. This will be relevant to your Oslo project because the GPS produces the same kind of information that you are presented with here. You will learn this through a Crime Scene Investigation

The infamous Cape Town mafia has struck again. Last week on Tuesday at 2:30 PM, South Africa’s third largest bank, Liquid Capital Inc, was robbed during a well-planned and brazen operation. The window was smashed by a pedestrian and seconds later four armed men emerged from a dark brown car, robbed the place and escaped out of sight. A police vehicle moving southbound towards the bank just before the robbery was diverted by a speeding car moving out towards the docklands, and the police suspect this being a conscious manoeuvre by a collaborator. The perpetrators are yet to be identified, and the case has been classified top priority by the metropolitan commissioner.

Over the last months the intelligence service has shadowed some of the most habitual local villains and in some instances tagged them with an interactive GPS device. The device tracks down the movements of these individuals and sends information on their whereabouts back to the police station. Now, the Cape Town police force lack proper training in GIS and are not able to make sense of the spatial data they have. You’re hired to decipher the GPS tracking, pin down the guilty and mete out an appropriate sentence.

From the Z:\gis\modul4 folder, open the layers containing South African municipalities and roads respectively. Based on the relative density of the road grid, select and isolate the municipalities constituting the Cape Town metropolitan area in a separate shapefile and add it to your project. The branch that was robbed is located downtown Cape Town at 18°32’24”E and 33°58’12”S. Make a new point file and symbolize the bank’s locality with a $ or a similarly appropriate sign.

The GPS information is stored in a number of database files which the police has made accessible for your investigation. They are stored in the Z:\rosa\gis\modul8 folder and named tag1 through 5. In addition, similar data about the movement of two police cars have been made accessible. This will help you in the task of identifying possible collaborators. Unfortunately, there were only two police cars in operation due to a local holiday, and they are named police1 and 2. The GPSs recorded their position once a minute and the transcripts you are presented with start at 2:00 PM sharp.

Such information can be added to the project using the Add X/Y data tool from the Tools menu. Complete the dialogue box for each database file and let the event layers be added to your project. Rename the new layers appropriately.

The movements of the suspects can be reconstructed using a GPS simulation. From the View menu, choose Toolbars and then GPS. The GPS toolbar appears. Extend the GPS dropdown and choose GPS Connection setup. Activate the Simulate GPS connection using point or line data area. From the dropdown list, choose the X/Y data set that you want to simulate. Choose
an interval of one second and click OK. Then hit the *Open connection* button on the GPS toolbar.

From this information, give your advice to the police department on who have committed this terrible crime and also, if evidence for such an affiliation exists, who is to be charged with collaboration.

Present your decision in the form of a map which documents the movements of the relevant individuals and groups at the point in time of the robbery. Insert a legend explaining whose movements have been shown.

Good luck!