# Software Requirement Specifications

1. Data visualisation for the amount of authenticated users for each Institute of Higher Learning (IHL) is to be expressed in the form of graphs.
   1. Daily graph: displays the number of unique users for each day in the current month.
   2. Monthly graph: displays the number of unique users for each month in the current year.
   3. Yearly graph: displays the number of unique users for each year.
2. Data visualisation for the amount of individual authentication requests received by the eduroam server are to be expressed in the form of graphs
   1. Hourly graph: displays the number of accepted/rejected requests in the previous day at hourly intervals.
   2. Daily graph: displays the number of accepted/rejected requests for each day in the current month.
   3. Monthly graph: displays the number of accepted/rejected requests for each month in the current year.
3. The authenticated users are defined in 3 categories:
   1. LocalUsers: denotes the staff and students from a certain IHL using eduroam overseas or in other IHLs.
   2. Visitors: denotes foreign exchange personnel using eduroam in that specific IHL.
   3. Rejected: denotes all rejected users from the certain IHL or overseas.
4. The log file processing program is to be refined to increase modifiability and maintainability by reducing the amount of code needed for adding new IHLs to the system or the addition of new features.
5. The data visualisation should be viewed on a javascript-enabled html webpage within the statistics portion of the SingAren website.
6. The graphs should clearly define the data values such that users can deduce the usage statistics easily.
7. The log extraction program is to be written in Python, while the data visualisation tool is coded in Javascript and HTML.
8. The specified environment for the log file processing system is Ubuntu Linux running Python v2.7.3 and Apache Server.