

# Vulnerability Assignment Rubric (DATA2901-ADV)

Viral Vulnerability Assignment Rubric (DATA2901-ADV)						
Criteria	Ratings				Pts	
Data Import	<b>1 to &gt;0.5 pts</b> <b>Good</b> all 5 CSV files loaded	<b>0.5 to &gt;0 pts</b> <b>Needs Improvement</b> not all data loaded	<b>0 pts</b> <b>No Marks</b> not done		1 pts	
DB Schema	<b>1 to &gt;0.75 pts</b> <b>Very Good</b> good normalised schema with all PKs and suitable FKs; consistent naming; suitable domain types	<b>0.75 to &gt;0.5 pts</b> <b>Good</b> tables for all data with PK and some FKs	<b>0.5 to &gt;0 pts</b> <b>Needs Improvement</b> incomplete schema	<b>0 pts</b> <b>No Marks</b> no db created	1 pts	
Neighbourhood Join	<b>2 to &gt;1 pts</b> <b>Very Good</b> correct precise matching using PostGIS and exact ABS boundaries.	<b>1 to &gt;0.5 pts</b> <b>Good</b> matched by just name (not spatially) or match using built-in GEOMETRY types on approx. bounding boxes of suburbs	<b>0.5 to &gt;0 pts</b> <b>Needs Improvement</b> incomplete attempt	<b>0 pts</b> <b>No Marks</b> not done	2 pts	
Own Dataset	<b>1 to &gt;0.5 pts</b> <b>Very Good</b> At least one more dataset imported into DBMS (with good schema) of a type not used so far (eg. JSON)	<b>0.5 to &gt;0.25 pts</b> <b>Good</b> Another CSV dataset read via Python script at runtime or into simple schema	<b>0.25 to &gt;0 pts</b> <b>Needs Improvement</b> incomplete attempt to integrate another data set	<b>0 pts</b> <b>No Marks</b> no own dataset	1 pts	
Vulnerability Score	<b>2 to &gt;1 pts</b> <b>Very Good</b> Vulnerability score well implemented, incl. extension if own dataset was integrated	<b>1 to &gt;0.5 pts</b> <b>Good</b> Basic vulnerability-score as given implemented	<b>0.5 to &gt;0 pts</b> <b>Needs Improvement</b> incomplete attempt	<b>0 pts</b> <b>No Marks</b> not done	2 pts	
Indexing	<b>1 to &gt;0.5 pts</b> <b>Good</b> More than one useful index created; at least one spatial index	<b>0.5 to &gt;0 pts</b> <b>Ok</b> At least one useful index created	<b>0 pts</b> <b>No Marks</b> no index beyond PKs		1 pts	
Correlation Tests	<b>1 to &gt;0.5 pts</b> <b>Very Good</b> score correlated to COVID-19 cases and to conducted COVID-19 tests	<b>0.5 to &gt;0.25 pts</b> <b>Good</b> either score correlated to COVID-19 cases and to conducted COVID-19 tests	<b>0.25 to &gt;0 pts</b> <b>Needs Improvement</b> incomplete attempt	<b>0 pts</b> <b>No Marks</b> not done	1 pts	

Dataset & DB Description	<b>1 to &gt;0.75 pts Very Good</b> all data sources briefly described and DB schema given		<b>0.75 to &gt;0.5 pts Good</b> all data sources briefly described	<b>0.5 to &gt;0 pts Needs Improvement</b> incomplete description	<b>0 pts No Marks</b> not done	1 pts		
Viral Risk Analysis	<b>1 to &gt;0.75 pts Very Good</b> scoring function well described; good discussion of results ideally with graphical visualisation		<b>0.75 to &gt;0.5 pts Good</b> used scoring function described with one textual example result	<b>0.5 to &gt;0 pts Needs Improvement</b> incomplete description	<b>0 pts No Marks</b> not done	1 pts		
Correlation Analysis	<b>1 to &gt;0.75 pts Very Good</b> correlation analysis described with statistical interpretation		<b>0.75 to &gt;0.5 pts Good</b> correlation analysis described and stats listed	<b>0.5 to &gt;0 pts Needs Improvement</b> incomplete description	<b>0 pts No Marks</b> not done	1 pts		
Data Visualisation	<b>2 to &gt;1 pts Very Good</b> good figures/plots plus some useful map-overlay visualisation (or equivalent) used		<b>1 to &gt;0.5 pts Good</b> good use of figures (such as plots) to visualise analysis results	<b>0.5 to &gt;0 pts Needs Improvement</b> incomplete or wrong data visualisation	<b>0 pts No Marks</b> not done	2 pts		
Report Quality	<b>2 to &gt;1 pts Very Good</b> great report which is in length limit, is well structured, is well written, no spelling mistakes and grammatically correct, good use of figures to visualise points, good font size and spacing			<b>1 to &gt;0.5 pts Good</b> good report with at most three things that could get improved (list see besides)	<b>0.5 to &gt;0 pts Needs Improvement</b> report has more than three weaknesses	<b>0 pts No Marks</b> no report	2 pts	
Web-Scraping/Web-API	<b>1 to &gt;0.5 pts Good</b> Good use of Web-API or Web-Scraping (not just download) to enrich or extend data			<b>0.5 to &gt;0 pts Ok</b> some simple Web-Scraping or Web-API data import done		<b>0 pts No Marks</b> not done	1 pts	
Machine Learning	<b>3 to &gt;1.5 pts Very Good</b> enriched datasets via either NLP for extracting Named Entities and their properties from (web) text, or by using ML classification methods; used in Vulnerability Analysis			<b>1.5 to &gt;0.5 pts Good</b> some ML or NLP methods used to enrich given datasets, but not further used		<b>0.5 to &gt;0 pts Needs Improvement</b> incomplete approach	<b>0 pts No Marks</b> no report	3 pts
Total Points: 20								