**Artifact Narrative – Database Enhancement (Export CSV)**

The artifact is my Animal Rescue Dashboard, created in CS 340 in April 2024. It connects to a MongoDB collection named animals, shows the data in a table, and updates a pie chart and map. The database enhancement adds an Export CSV button that lets staff download the rows currently on screen after any filters. When the user clicks the button, a Dash callback converts the active table to a Pandas DataFrame and streams a file named filtered\_animals.csv.  
I chose this item because Grazioso Salvare staff often move data into spreadsheets for planning rescues. The CSV export shows that I can read from the database, transform the result set in memory, and give users a portable file without re‑querying MongoDB. This demonstrates my skill in programming solutions that store, manipulate, and serve data, matching the database outcome in my Module One plan.  
The enhancement meets my planned outcomes: it uses proven tools such as Pandas and Dash Download to move data efficiently and safely. I did not change my outcome map.  
During development I learned how Dash’s Download component streams data with correct MIME headers. The challenge was keeping file generation light; I solved it by reusing the DataFrame already in memory instead of running a new query. I also hardened the connection layer by moving credentials to environment variables and adding a ping check.  
This Export CSV feature proves I can manipulate data pulled from MongoDB and deliver it in a format the organization uses every day.