Unit Test code

Victorian State Crash Data Set

A blue square with a white outline on it

Description automatically generated

**Student Names**

Samaar Bajwa | s5254805

Christopher Burrel | s5237645

Gauruv Grover | s5320837

# Check out of date range

select = select\_vsads\_by\_date\_range(conn, “01/01/2013” , “01/01/2033”)  
if isinstance(select, str):  
 print(“Date not found”)  
else:  
 print("Date found”)

# Check in date range

select = select\_vsads\_by\_date\_range(conn, “01/01/2014” , “01/01/2015”)  
if isinstance(select, str):  
 print(“Date not found”)  
else:  
 print("Date found”)

# Check the accidents exist within the date range

count = count\_vsads\_by\_date\_range(conn, start\_date, end\_date)  
if isinstance(count, str):  
 print(count)  
else:  
 print("Number of accidents within date range:", count)

# Check the number of rows in the DataFrame  
print("Number of rows in crash\_data DataFrame:", len(crash\_data))

# Check the number of rows in the crash\_data table in the database  
cursor.execute("SELECT COUNT(\*) FROM crash\_data")  
row\_count = cursor.fetchone()[0]  
print("Number of rows in crash\_data table:", row\_count)

# Check the accidents exist within the date range

count = count\_vsads\_by\_date\_range(conn, start\_date, end\_date)  
if isinstance(count, str):  
 print(count)  
else:  
 print("Number of accidents within date range:", count)

# Check the average number of crashes by hour

average\_injuries\_by\_hour = calculate\_average\_by\_hour\_of\_day(conn)  
print("Average injuries by hour of day:", average\_injuries\_by\_hour)

# Check the user selected keywords of collision with vehicle and struck animal

selected\_keywords = ["Collision with vehicle", "Struck animal"]  
filtered\_data = filter\_vsads\_by\_keywords(conn, selected\_keywords)  
print("Filtered data by keywords:", len(filtered\_data), "records found.")

else:

print (“records no found.)

# Check the user selected keywords of unicorn and banana

selected\_keywords = ["unicorn", "banana"]  
filtered\_data = filter\_vsads\_by\_keywords(conn, selected\_keywords)  
print("Filtered data by keywords:", len(filtered\_data), "records found.")

else:

print (“records no found.)

# Check the alcohol related data

alcohol\_related\_data = filter\_vsads\_by\_alcohol(conn, False)  
print("Alcohol-related data:", len(alcohol\_related\_data), "records found.")

# Check the alcohol related data within a selected date

count = count\_vsads\_by\_date\_range(conn, start\_date, end\_date)

alcohol\_related\_data = filter\_vsads\_by\_alcohol(conn, False, count)  
print("Alcohol-related data:", len(alcohol\_related\_data), "records found.")