

PASCAL

A Property Graph Schema Visualiser

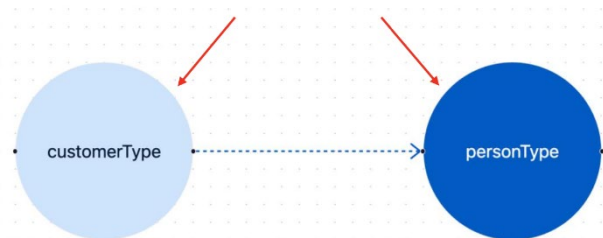
Student: Chantharajwong Kasidis Supervisor: Assoc Prof Sourav S Bhowmick

PROJECT OBJECTIVES

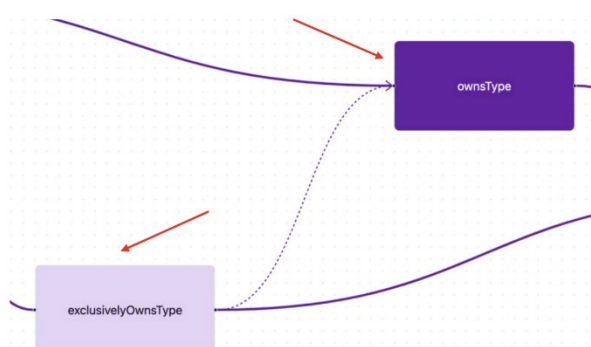
This project presents a graphical user interface (GUI) called PASCAL (Property Graph Schema Visualiser) to help graph database users understand their property graph schema with an aesthetically pleasing schema visualisation. The GUI accepts a plaintext schema input in PG-Schema syntax from the user and visualises it as an easy-to-understand diagram. Additionally, the design choices of PASCAL are backed by cognitive psychology, HCI, and visualisation theories.

PG-SCHEMA FEATURES

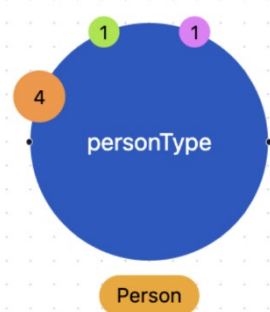
Nodes



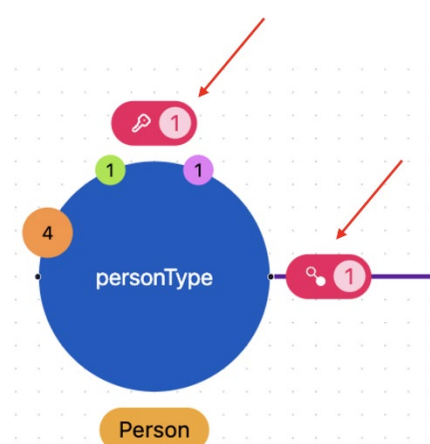
Relationships



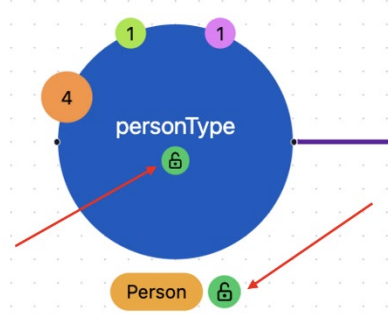
Labels and Properties



Constraints



OPEN Keyword



COGNITIVE PSYCHOLOGY THEORIES

- ✓ Gestalt Principles
 - ✓ Proximity
 - ✓ Similarity
 - ✓ Continuity
 - ✓ Symmetry
 - ✓ Common Fate

HCI & VISUALISATION THEORIES

- ✓ Shneiderman's Golden Rules
 - ✓ Offer informative feedbacks
 - ✓ Prevent errors
 - ✓ Permit easy reversal of actions
 - ✓ Reduce short-term memory load
- ✓ Visual Hierarchy
- ✓ Guidelines for using colour
- ✓ Usability of Icons

USER STUDY RESULTS

