CS 3250: Software Testing (Fall 2025)

Activity: Graph coverage – 2

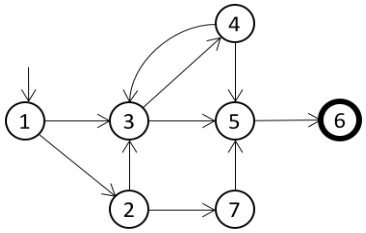
(no submission)

Purpose: Practice graph-based testing, apply structural graph coverage criteria to design tests

You may make a copy of a worksheet and complete this activity, or type your answers in any text editor.
You may work alone or with at most two other students in this course

---

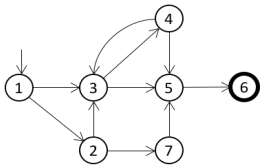
Consider the following graph



1. Apply **Node Coverage** (NC)
   - Derive a set of test requirements that satisfies Node Coverage
   - Identify a set of test paths (hint: 2 or 3 test paths)

2. Apply **Edge Coverage** (EC)
   - Derive a set of test requirements that satisfies Edge Coverage
   - Identify a set of test paths (hint: 4 test paths)

3. Apply **Edge-Pair Coverage** (EPC)
   - Derive a set of test requirements that satisfies Edge-Pair Coverage (hint: 14 test requirements)
   - Identify a set of test paths (hint: 5 or 6 test paths)



Include the graph here for your convenience

4. Apply **Simple Path Coverage**
   - Derive a set of test requirements that satisfies Simple Path Coverage (hint: 40 test requirements)

   Note: let's skip test paths for this Simple Path-adequate test set.

5. Apply **Prime Path Coverage** (PPC)
   - Derive a set of test requirements that satisfies Prime Path Coverage (hint: 8 test requirements)
   - Identify a set of test paths (hint: 6 or 7 test paths)

Last updated 2025-09-28 21:19