```
--- select meta-model types of input and output
modeltype AD uses 'http://www.eclipse.org/uml2/5.0.0/UML';
modeltype mitigation uses 'http://sse.uni-due.de/mitigationtemplate';
--- define transformation function signature
--- actD^hir is the activity diagram containing hazard-inducing requirements to be
--- changed to hazard-mitigating requirements actD^hmr.
--- CM^h is a set of partial mitigations
transformation generateHazardMititgatingReqs
    (in actD^hir:AD, in CM^h:mitigation, out actD^hmr:AD);

main() {
    --- select mitigated hazard by checking which hazard is referenced in first
    --- mitigation template in the array
    Let haz = h ∈_t pm_1^h | pm_1^h ∈ CM^h
    --- check if all templates reference same hazard
    foreach pm_i^h ∈ CM^h {
        if h ∈_t pm_i^h ≠ haz {
            throw error("Multiple Conceptual Mitigations detected. Aborting");
            return ad^hmr = ∅;
        }
    }

```

Listing 1 Pseudo-Code Signature sig of a QVTo Script q^{hmr} to Generate Hazard-Mitigating Requirements