# SOEN331: Introduction to Formal Methods for Software Engineering

# for Software Engineering

# Assignment 2 on Object-Z specification

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# 1 Map

**Map**

$\upharpoonright (AddLocationOK, DeleteLocationOK, ModifyLocationOK, FindLocationOK)$

$annonations : Description \nrightarrow Point$

$\forall\, d1, d2 : dom\ annotations \bullet (annonations(d1) = annonations(d2)) --> d1 = d2$

**INIT**

$annotations = \varnothing$

**AddLocationOK**

$\Delta(annotations)$
$description? : Description$
$coordinate? : Point$

$//addpreconditionandpostconditionhere$

**DeleteLocationOK**

$\Delta(annotations)$
$who? : Description$

$who? \in dom\ annotations$
$annotations' = \{who\} \lhd annotations$

**ModifyLocationsOK**

$\Delta(annotations)$
$description? : Description$
$coordinates? : Point$