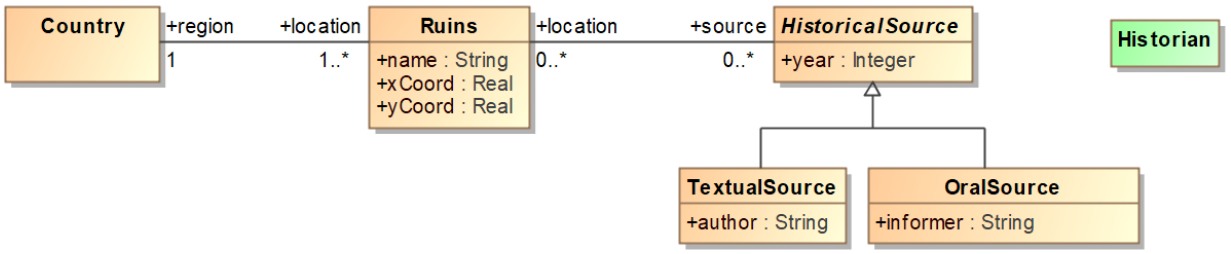
Exercise 2: Finding the Ark of the Covenant

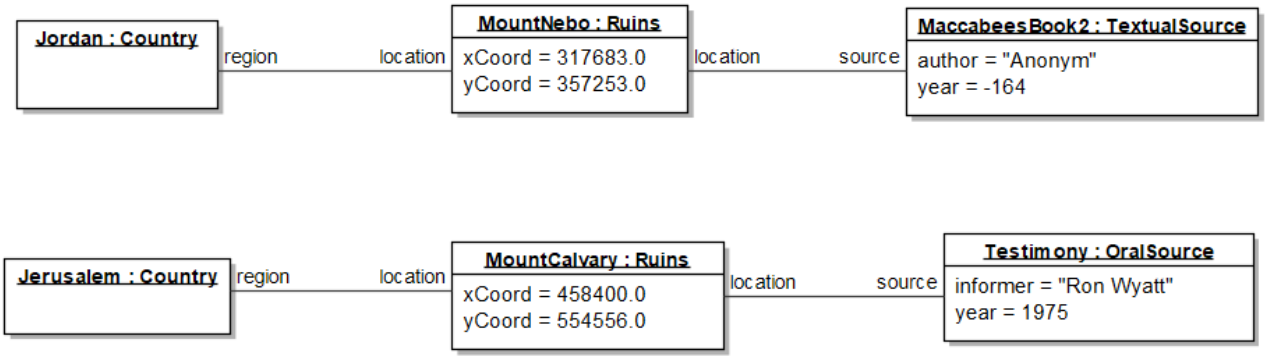
The goal of this exercise is to check whether you are able to use the BeliefUncertainty UML Profile to assign some opinions to a software model. As part of this exercise, you will have to represent three opinions in a UML model, and we will ask you to respond to some questions from a questionnaire.

Before starting this exercise, please remember to start recording your screen.

In the following figure, you have the conceptual model of a system used by a group of historians to document their findings. This model relates a *Historical Source*, such as a book or a testimony that supports the existence of certain ruins at a specific location, to the *Country* where it is located.



Suppose that you are a historian trying to find the **Ark of the Covenant**, a pure gold-covered wooden chest containing the two stone tablets of the Ten Commandments. For your research, you have consulted different sources of information, each of which indicates different locations for the Ark. The information you and your team have gathered is summarized in the following diagram of objects.



The first reference that your team found regarding the location of the Ark of the Covenant comes from the Old Testament. In the Second Book of Maccabees, the prophet Jeremiah took the Ark and buried it in a cave only telling his closest followers the exact location. The place mentioned in the Bible is **Mount Nebo**, which is located in the country known today as Jordan.

The second reference comes from a biblical archeologist named Ron Wyatt, who was famous for claiming to have discovered numerous locations and artifacts related to biblical archeology. He claims that the Ark is located in the Garden of Tomb in the Mount Calvary, currently in Jerusalem.

To perform this exercise, the instructors will assign you one of the following roles (Historian 1, 2 or 3). Please read carefully the information that applies to your role, and add the information corresponding to the elements of the UML model as appropriate.

- **Historian 1:**

- ➢ After checking some new sources, you have come to the conclusion that the Second Maccabees Book was probably written in a different period. You are rather unsure about this, since there are conflicting interpretations.
- ➢ Checking the other possible location of the Ark, you discovered that the coordinates of Mount Calvary correspond to an area outside of Jerusalem, in a different region. You trust these new claimings and conclude that the Calvary was probably not located in Jerusalem.
- ➢ After doing some further research, you firmly believe in the existence of the ruins in Mount Calvary.

❖ **Historian 2:**

- ➢ Some historians and sources claim that Mount Calvary is a myth. After some research, you are certain that it never existed.
- ➢ Since you are sure that Mount Calvary does not exist, you decide to check some additional sources to find more information about Mount Nebo, and they lead you to conclude that the x coordinate of the location is imprecise, and that it was located further north.
- ➢ These sources also lead you to believe that the Second Book of Maccabees certainly mentions the existence of the ruins in Mount Nebo.

❖ **Historian 3:**

- ➢ You do not trust Ron Wyatt's work at all, you believe it to be a fraud. Therefore, his claims about the ruins under Mount Calvary must be a fabrication.
- ➢ Even though the claims are false, you find some other sources that support the coordinates of the Mount Calvary ruins. You believe that they are possibly located in that area.
- ➢ To contrast this information, you search more sources to find more information about the ruins of Mount Nebo and conclude that there is enough evidence to conclude that they certainly exist.

Exercise 2:

1. Please use the BeliefUncertainty UML profile to assign your opinions according to the role assigned to you.

2. Then, please upload your results using Questionnaire Q2 available at https://forms.gle/N1pTWJmKXM5s5adE6

Resources:

- The MagicDraw model is available at: https://github.com/atenearesearchgroup/belief-fusion-plugin/blob/main/empirical_experiment_material/MagicDrawModels/LostArk-Exercise1.mdzip
- You need to download the UML profile too, and place it in the same folder. (https://github.com/atenearesearchgroup/belief-fusion-plugin/blob/main/empirical_experiment_material/MagicDrawModels/BeliefUncertaintyProfile.mdzip)