

Assignment #3 - Programming with sets

Discrete Mathematics

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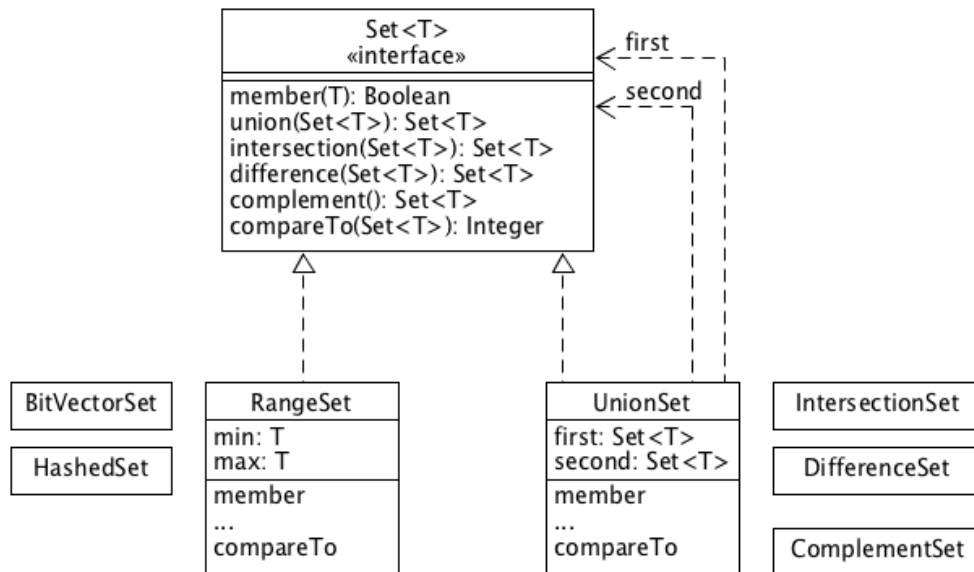
1 A set API

In your favorite language, or in a language you want to explore, create an API for handling sets. Sets can either be finite as $\{7, 9, 13\}$ or infinite as \mathbb{Z} or $\{5, \dots\}$.

Create methods for handling

- Membership
- Intersection
- Union
- Difference
- Complement

Tip create a class for each operation



Also create methods for handling subsets and equality as in exercise. Be aware, that infinite sets might not be determined whether to be subsets or not, so we end up with five cases:

- $A \subset B$: -1
- $A = B$: 0
- $A \supset B$: 1
- Undeterminable: 2
- $A \not\subset B \wedge B \not\subset A$: -2

Tip let -2 be the default value

Hand in

A link to the github repository. In groups on Moodle by Monday 2nd