Identification of system operations

```
createOffering(location, city, time, type, duration, startDate, endDate)
existsByCityAndLocationAndTimeAndStartDate(location, city, location, time, startDate)
makeBooking(offering)
takeOnOffering(offering)
```

Operation contract

Contract CO2: createOffering

<u>Operation:</u> createOffering(location, city, time, type, duration, startDate, endDate)

<u>Cross References:</u> Use case: Process Offering.

Preconditions: Offering does not already exist.

Postconditions: An Offering instance o was created.

Instance o was associated with Offerings.

Contract CO2: makeBooking

Operation: makeBooking(offering)

<u>Cross References:</u> Use case: Process Booking.

Preconditions: Client is registered.

Postconditions: A Booking instance b was created.

Instance b was associated with Bookings. Instance offering was marked as unavailable.

Contract CO2: takeOnOffering

<u>Operation:</u> takeOnOffering(offering)

<u>Cross References:</u> Use case: Take On Offering.

Preconditions: offering exists.

offering location corresponds to Instructor availabilities.

Postconditions: offering was added to Instructor offerings.