

## Software Engineering, UML Homework, Spring

*Submission date (Teslim Tarihi): 01.06.2021 24:00*

*Points(Puan): 10*

*Aşağıdaki UML sorularının cevabını laboratuarda kullandığımız drawio UML aracıyla yaparak bir RAR dosyası olarak teslim ediniz.*

1 (2 points) Design class diagram for movies (filimler), artors (artistler), theaters (salonlar), tickets, and customer(müşteri) Create at least one meaningful association, one meaningful generalization, one meaningful aggregation between classes. You can create new classes if needed.

2 (2 points) Design a use case diagram for customers buying, using(entering) and returning(cancel&refund) movie tickets, returning tickets. Buying ticket involves (i) choosing a movie, (ii) listing available seats, (iii) choosing seats, and (iv) making payment and if payment is successful making the seat status *sold*. Returning a ticket involves (i) finding ticket by ticket no, (ii) making refund (iii) making the seat available again. Create appropriate associations between actors and use cases. Create at least one meaningful <<include>> and at least one <<extend>> relationship. You can define extra actors or use cases (tasks) if needed.

3 (2 points) Design a state diagram for movie objects in the movie application above. Movie can be in one of these states:

- In-making (movie is being made, yapım aşamasında)
- In-theaters (movie in theaters, sinemalarda oynuyor)
- In-video (movie is on video after theaters, sinemalardan sonra videoda satışta)
- Out-of-market (movie is nowhere, film artık hiçbir yerde bulunamıyor. Videodan da kalmış)

Events

- Finished-making (when finished making movie goes to theaters)
- Off-theaters (after theaters, movie goes to video)
- Off-video (after video sales, movie is completely off the market. film artık hiçbir yerde bulunamıyor. Videodan da kalmış)

4 (2 points) Make a sequence diagram for buying ticket use case in question 2. You will use classes from the class diagram in question 1. You can use extra classes if necessary. You will also decide the methods you need to answer the question.

5 (2 points) Draw an activity diagram buying ticket use case in question 2.