# 객체지향 설계 – Behavioral Modeling

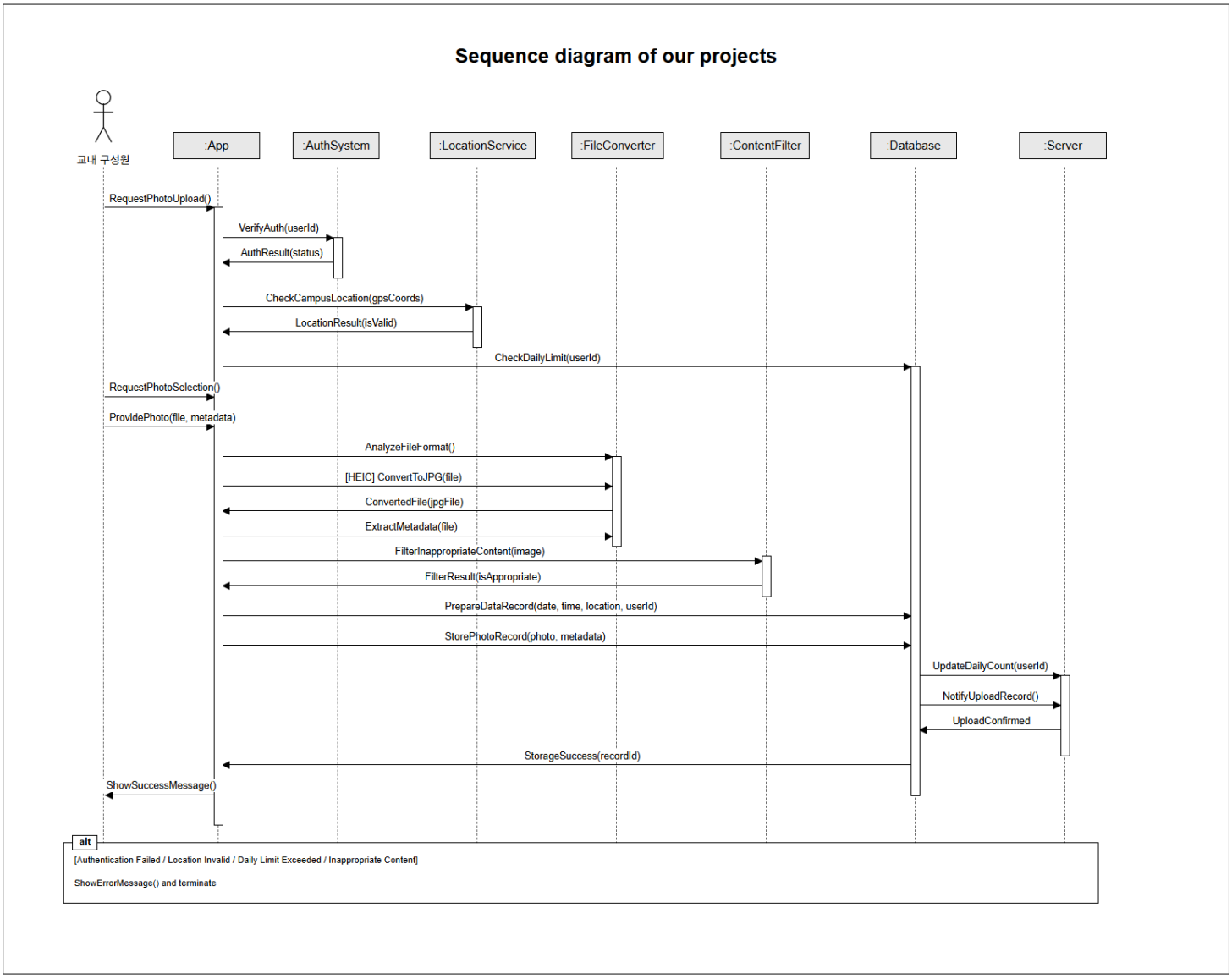
2팀:

소프트웨어학과 2020039031 여동찬

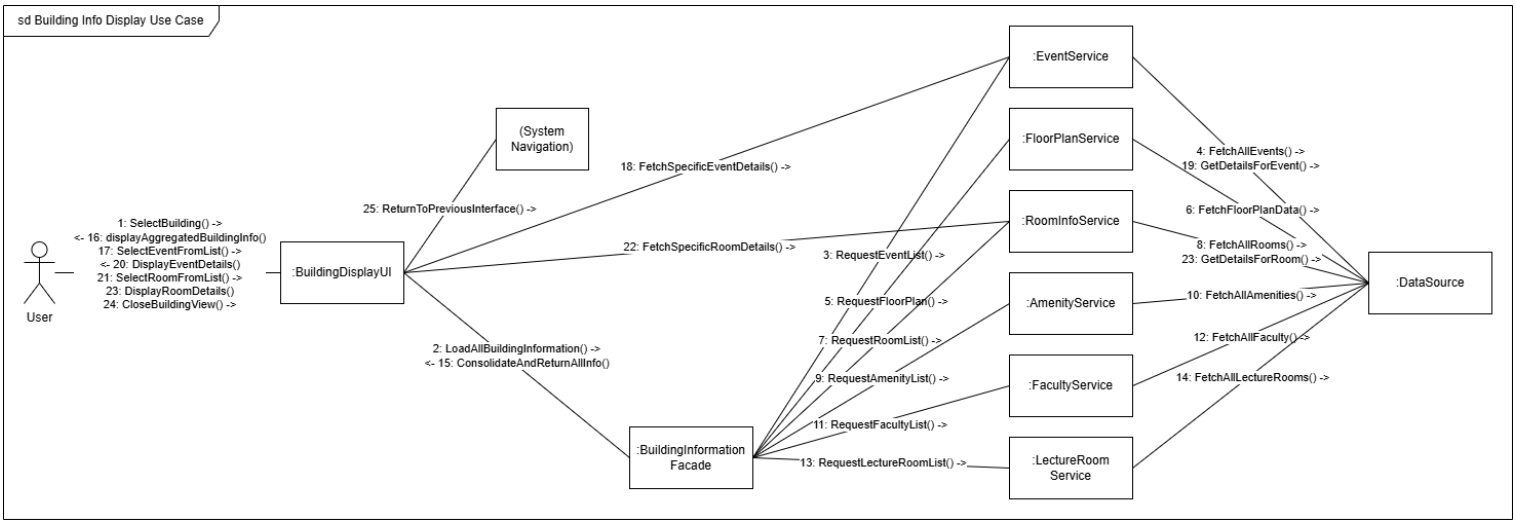
소프트웨어학과 2021041005 김태영

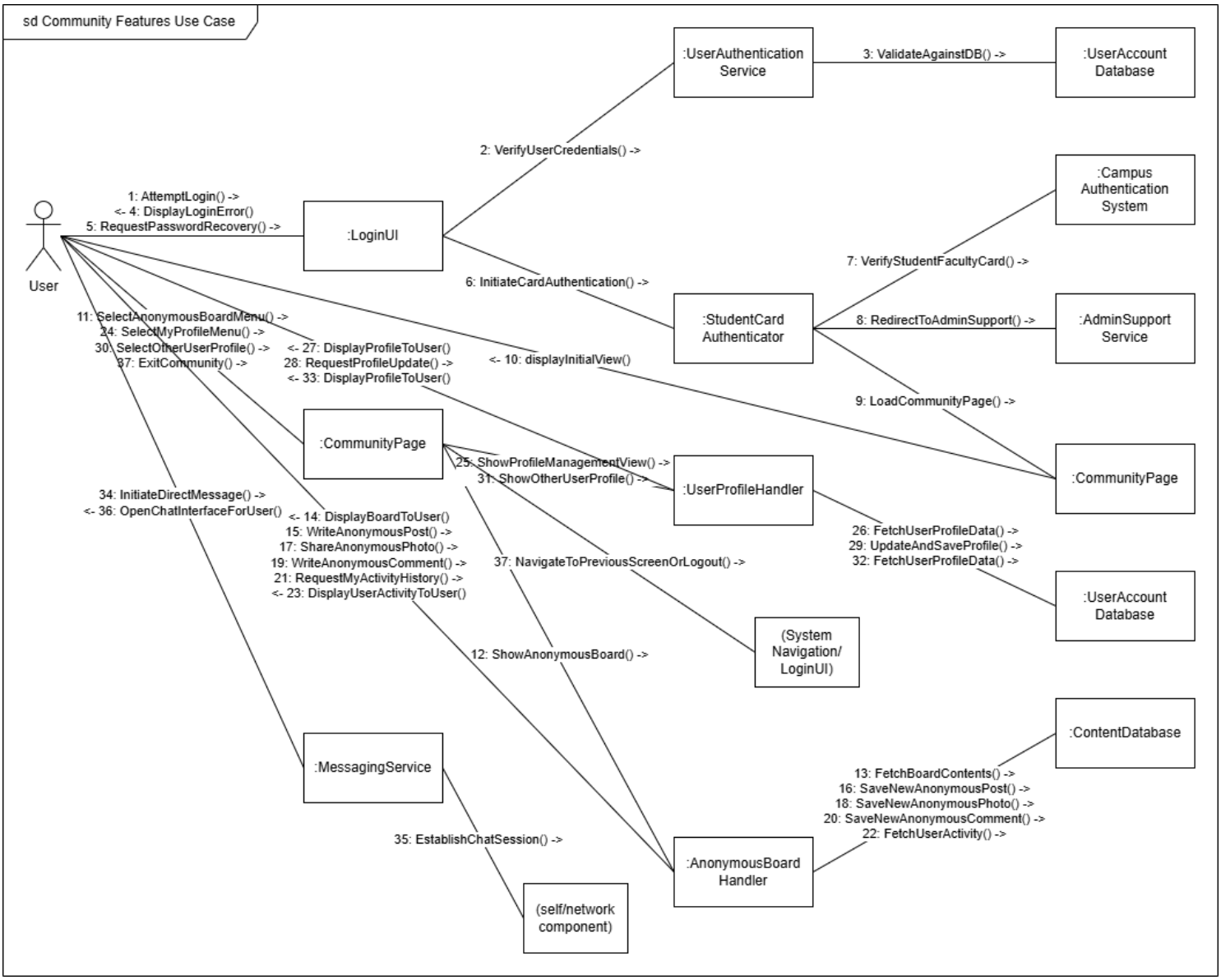
소프트웨어학과 2021041017 김규현

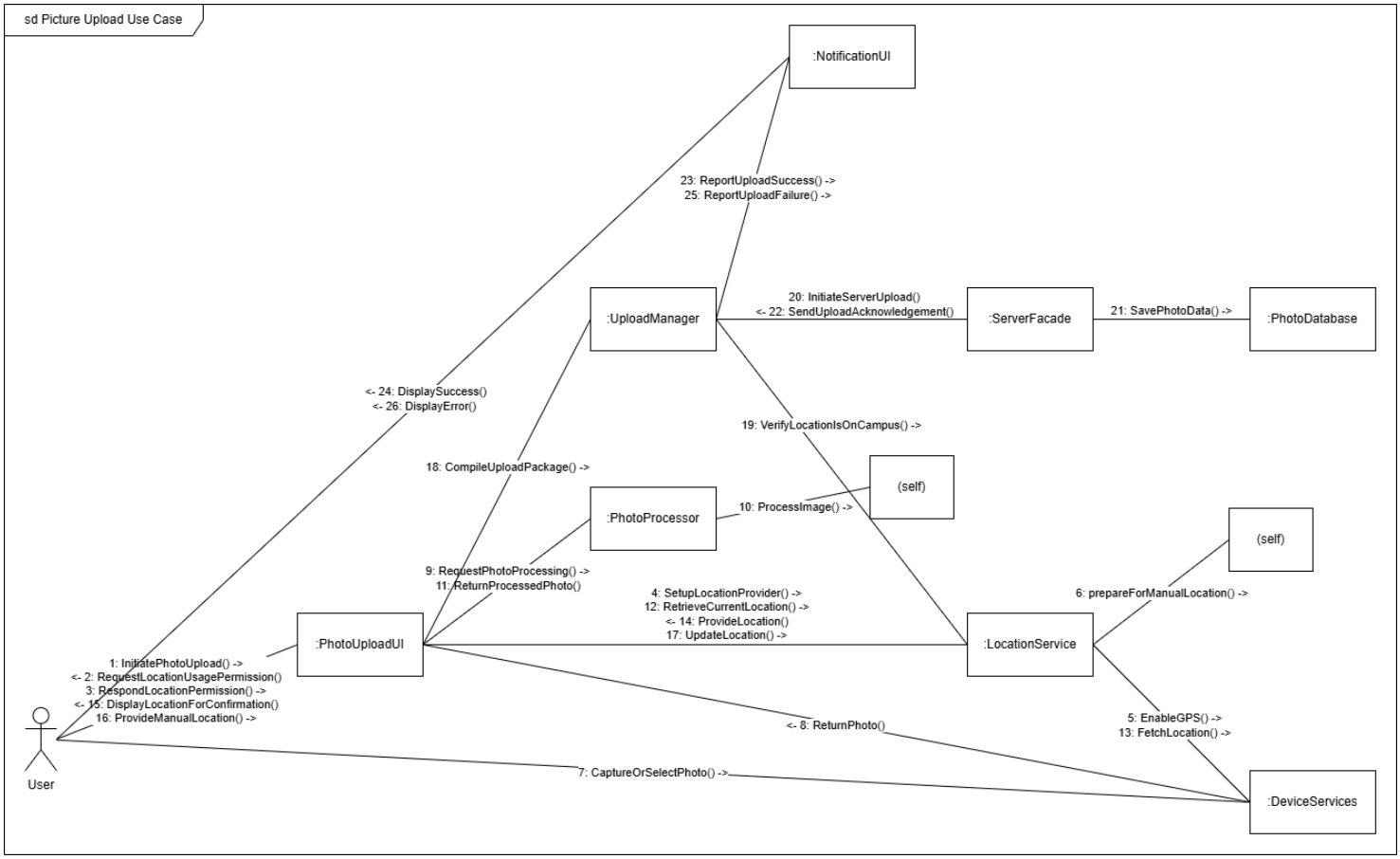
## Sequence Diagram:

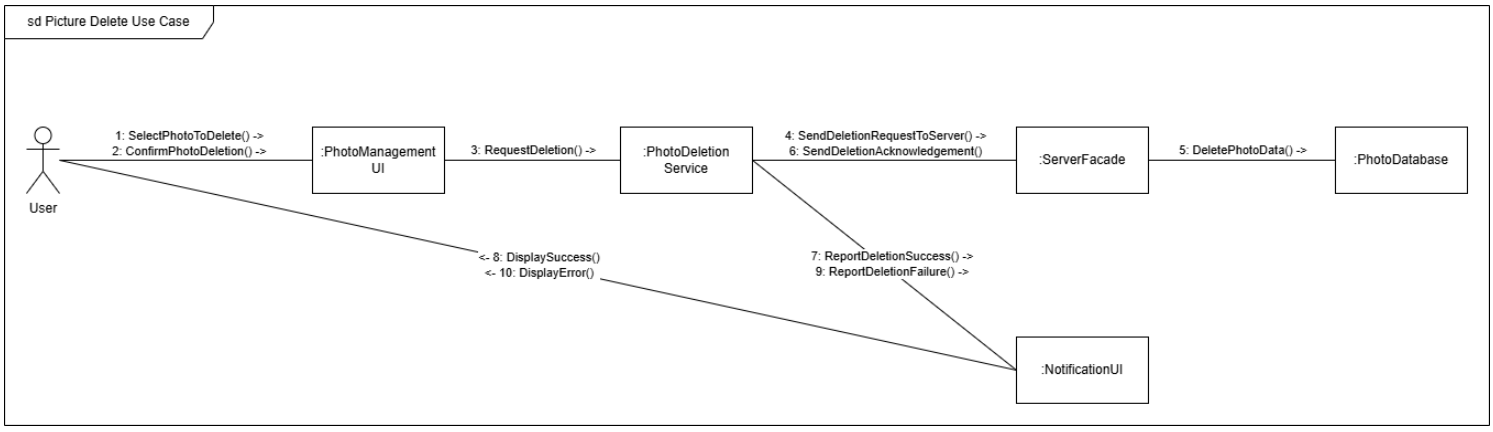


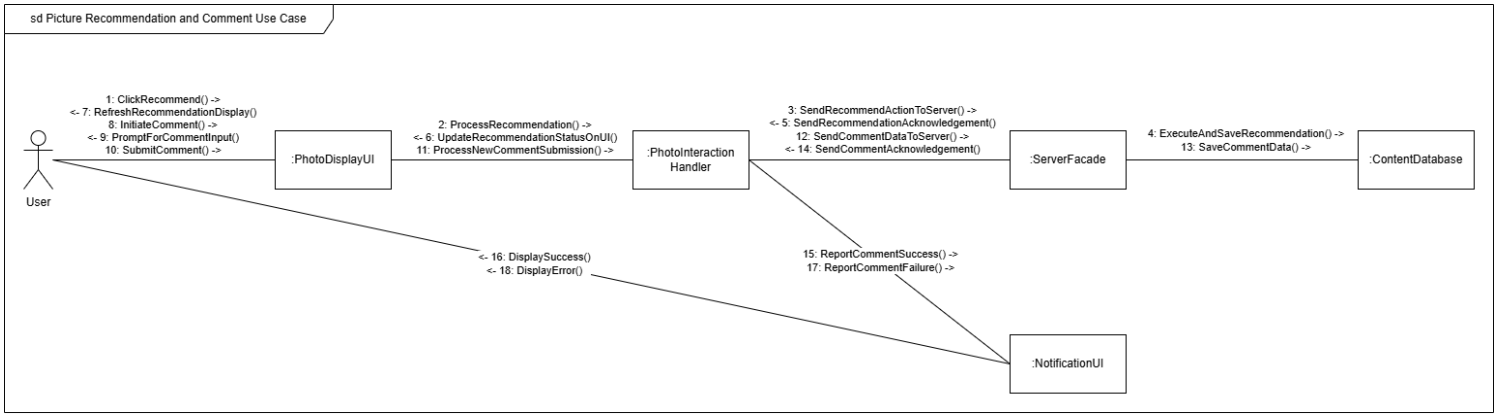
## Communication Diagram:



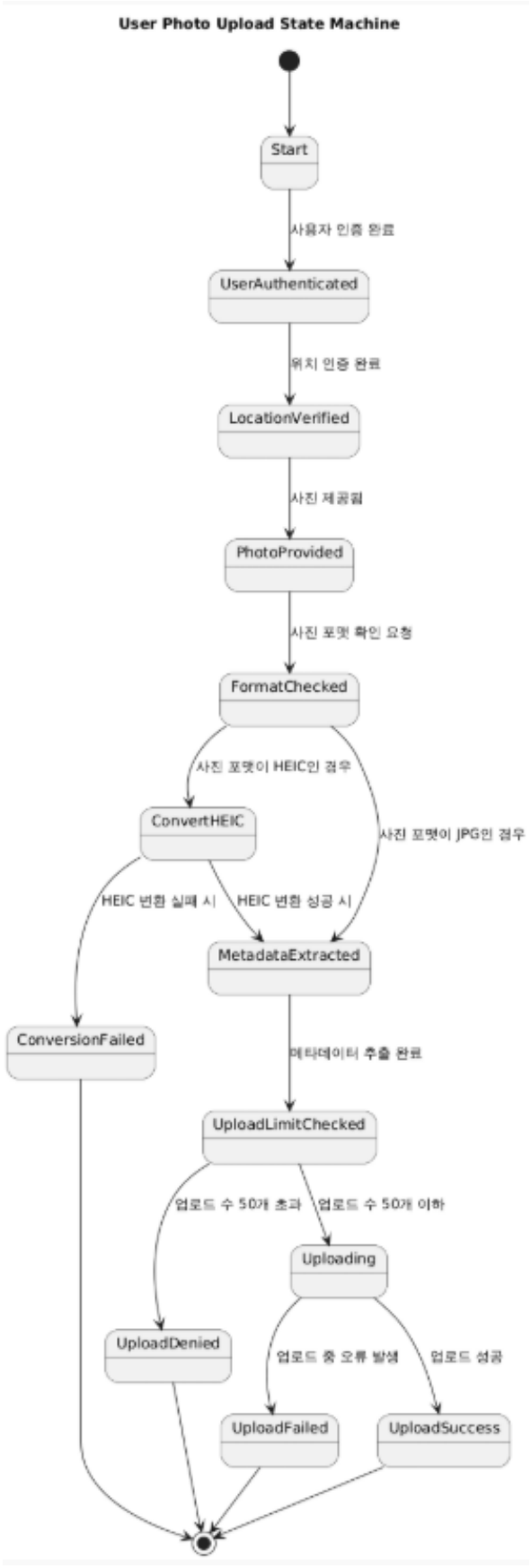



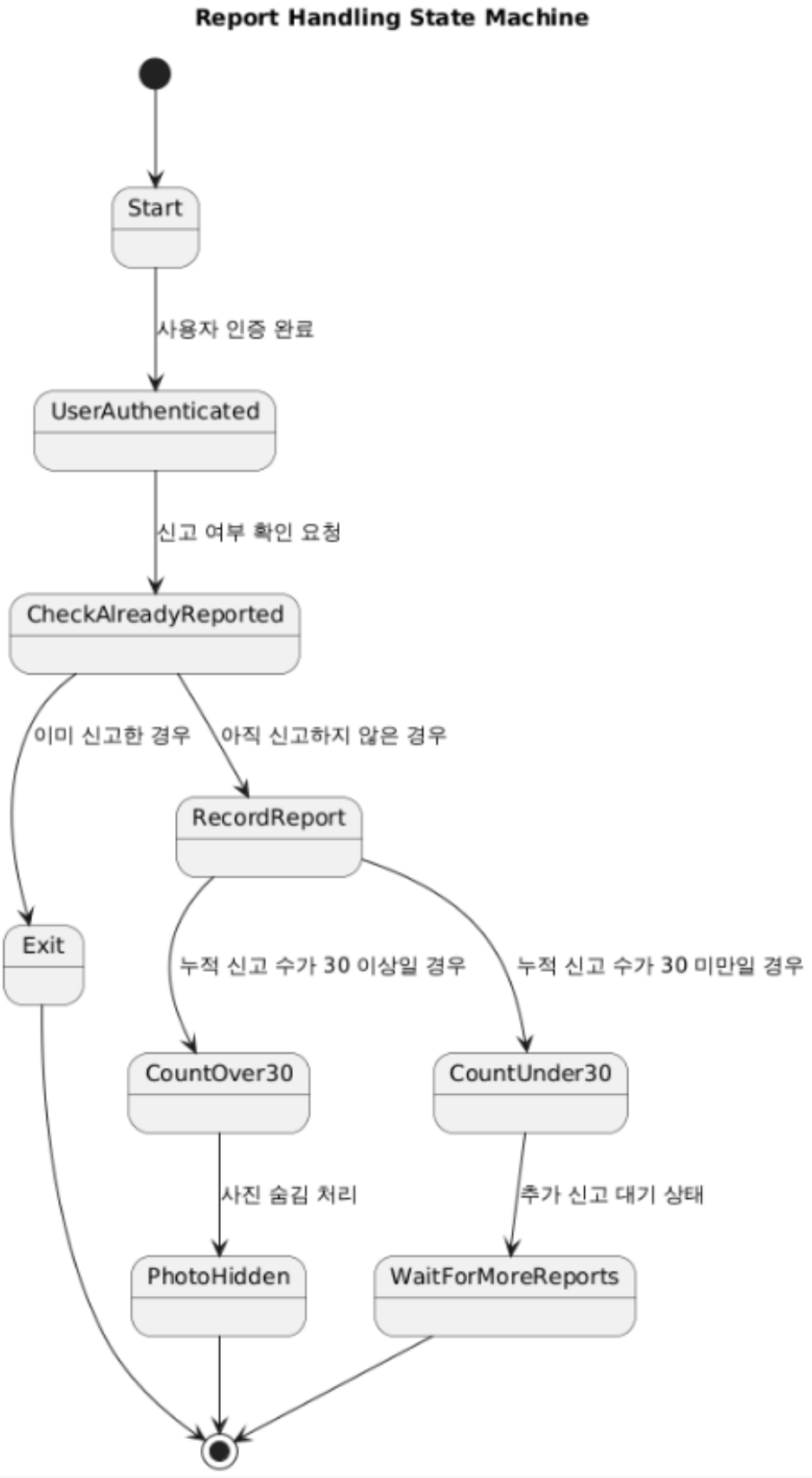

sd Picture Upload Use Case
:NotificationUI
23: ReportUploadSuccess() ->
25: ReportUploadFailure() ->
:UploadManager
20: InitiateServerUpload()
<- 22: SendUploadAcknowledgement()
:ServerFacade
21: SavePhotoData() ->
:PhotoDatabase
<- 24: DisplaySuccess()
<- 26: DisplayError()
19: VerifyLocationIsOnCampus() ->
18: CompileUploadPackage() ->
(self)
:PhotoProcessor
10: ProcessImage() ->
(self)
9: RequestPhotoProcessing() ->
11: ReturnProcessedPhoto()
4: SetupLocationProvider() ->
12: RetrieveCurrentLocation() ->
<- 14: ProvideLocation()
17: UpdateLocation() ->
6: prepareForManualLocation() ->
:PhotoUploadUI
:LocationService
1: InitiatePhotoUpload() ->
<- 2: RequestLocationUsagePermission()
3: RespondLocationPermission() ->
<- 15: DisplayLocationForConfirmation()
16: ProvideManualLocation() ->
<- 8: ReturnPhoto()
5: EnableGPS() ->
13: FetchLocation() ->
User
7: CaptureOrSelectPhoto() ->
:DeviceServices

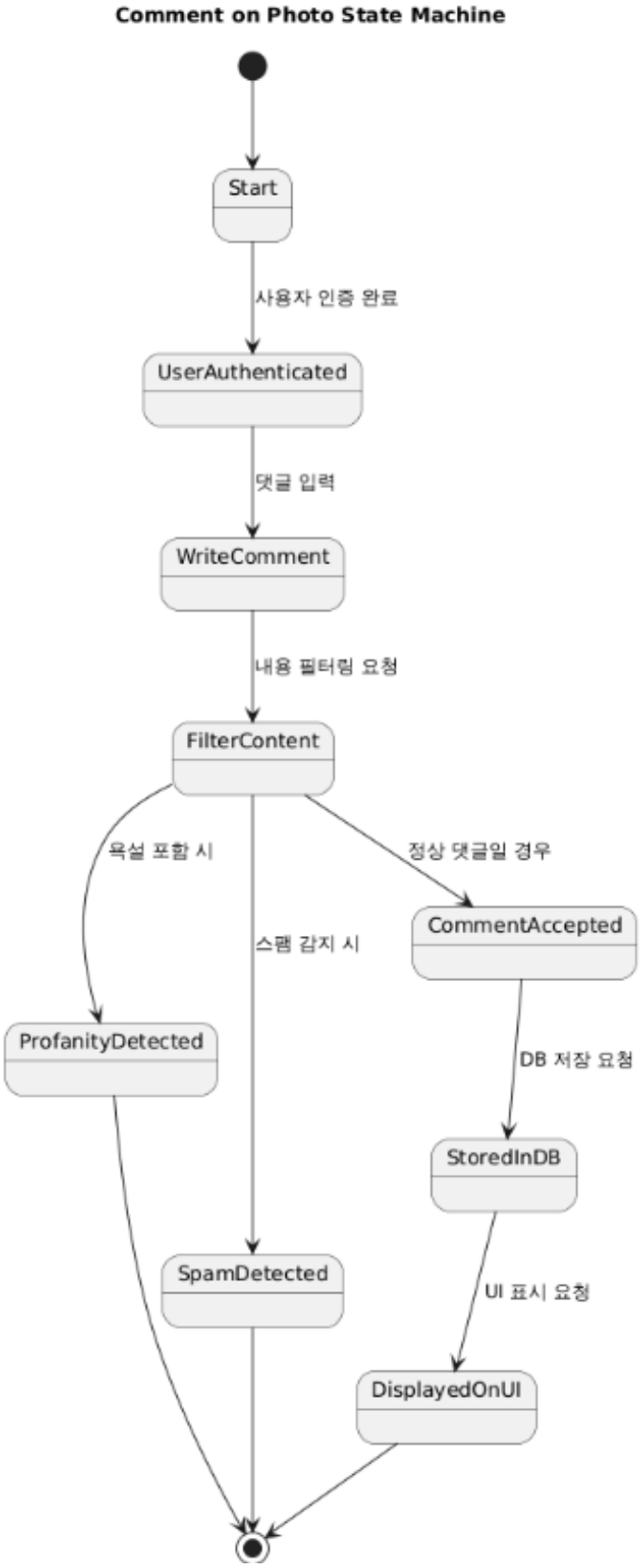

sd Picture Delete Use Case
1: SelectPhotoToDelete() ->
2: ConfirmPhotoDeletion() ->
:PhotoManagement UI
3: RequestDeletion() ->
:PhotoDeletion Service
4: SendDeletionRequestToServer() ->
6: SendDeletionAcknowledgement()
:ServerFacade
5: DeletePhotoData() ->
:PhotoDatabase
User
<- 8: DisplaySuccess()
<- 10: DisplayError()
7: ReportDeletionSuccess() ->
9: ReportDeletionFailure() ->
:NotificationUI

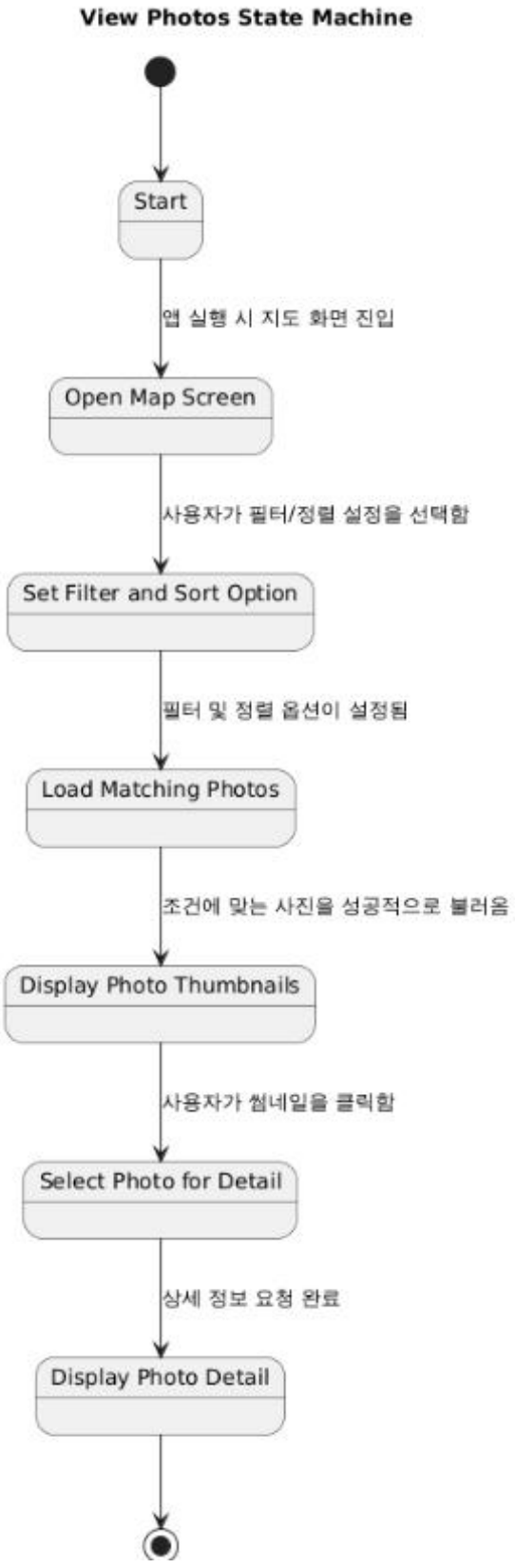

sd Picture Recommendation and Comment Use Case
1: ClickRecommend() ->
<- 7: RefreshRecommendationDisplay()
8: InitiateComment() ->
<- 9: PromptForCommentInput()
10: SubmitComment() ->
:PhotoDisplayUI
2: ProcessRecommendation() ->
<- 6: UpdateRecommendationStatusOnUI()
11: ProcessNewCommentSubmission() ->
:PhotoInteraction Handler
3: SendRecommendActionToServer() ->
<- 5: SendRecommendationAcknowledgement()
12: SendCommentDataToServer() ->
<- 14: SendCommentAcknowledgement()
:ServerFacade
4: ExecuteAndSaveRecommendation() ->
13: SaveCommentData() ->
:ContentDatabase
User
<- 16: DisplaySuccess()
<- 18: DisplayError()
15: ReportCommentSuccess() ->
17: ReportCommentFailure() ->
:NotificationUI

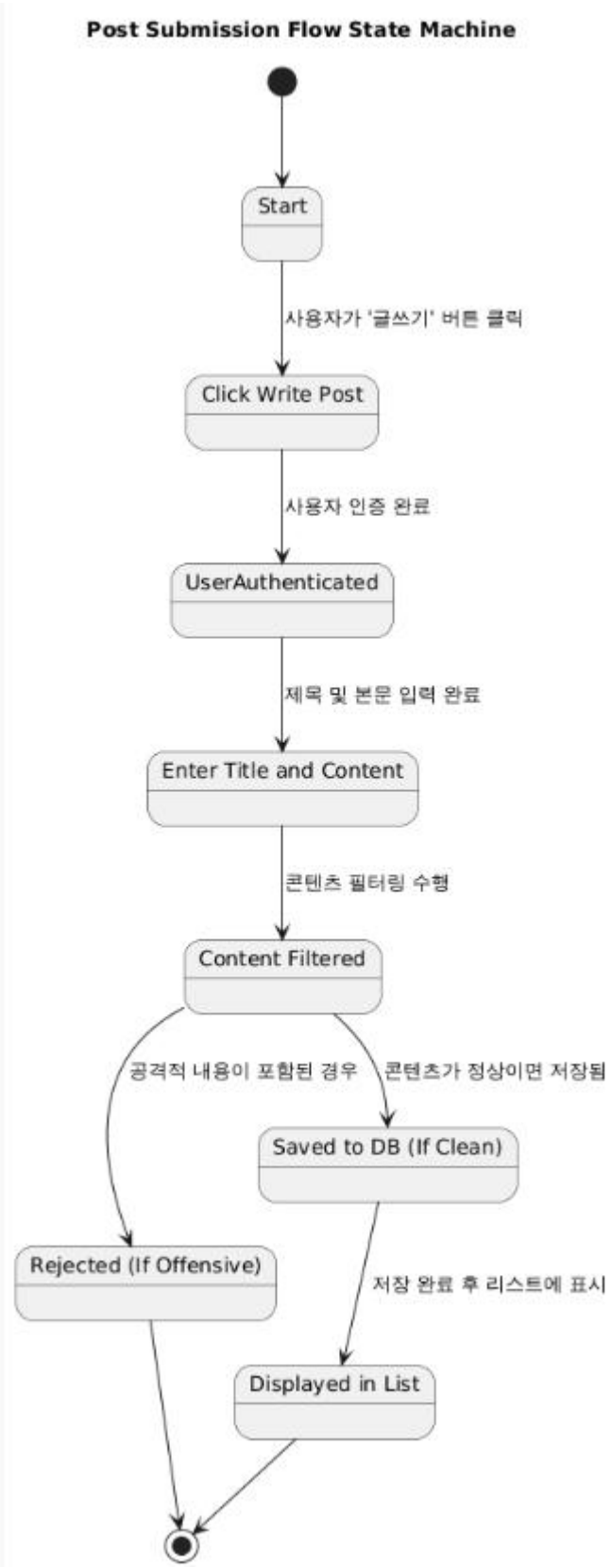
**Behavioral State Machine:**

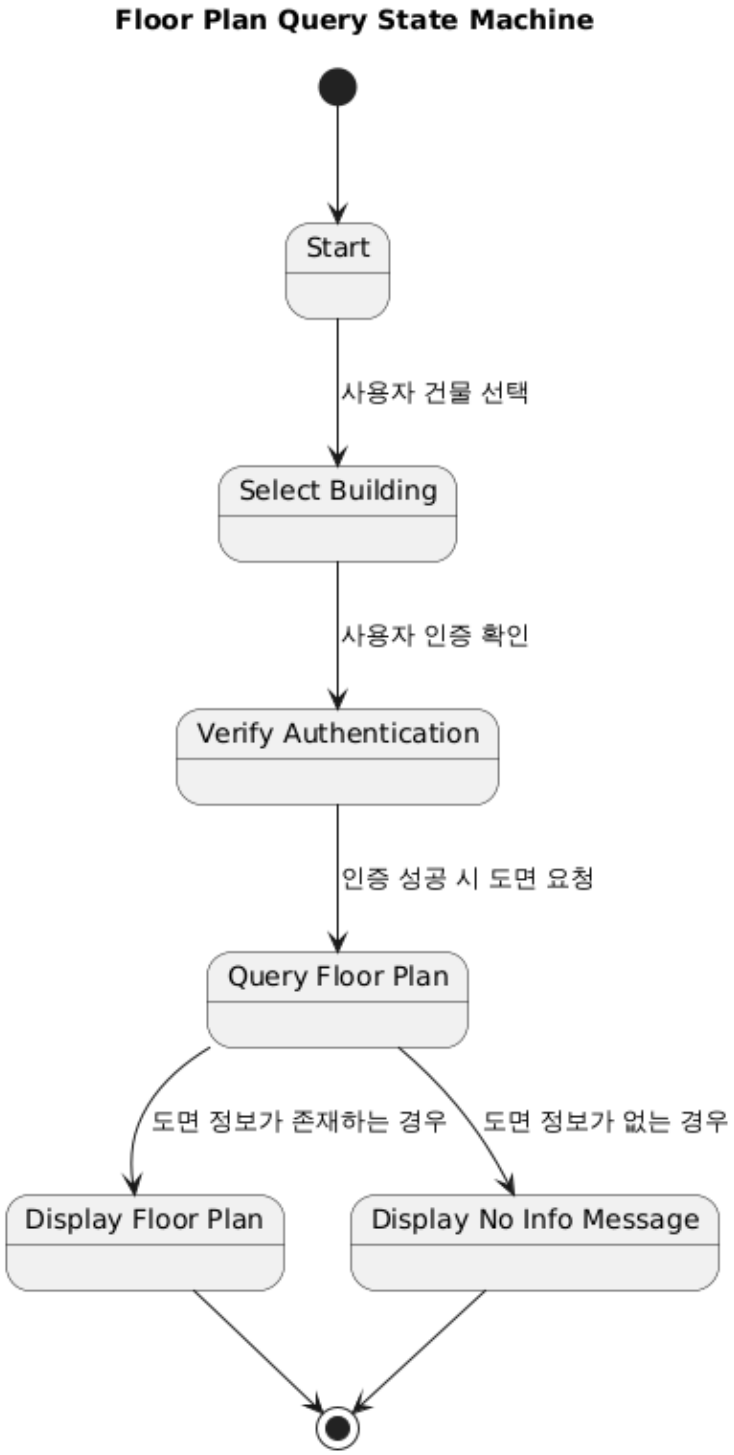



Report Handling State Machine
Start
사용자 인증 완료
UserAuthenticated
신고 여부 확인 요청
CheckAlreadyReported
이미 신고한 경우
아직 신고하지 않은 경우
RecordReport
Exit
누적 신고 수가 30 이상일 경우
누적 신고 수가 30 미만일 경우
CountOver30
CountUnder30
사진 숨김 처리
추가 신고 대기 상태
PhotoHidden
WaitForMoreReports


Comment on Photo State Machine
Start
사용자 인증 완료
UserAuthenticated
댓글 입력
WriteComment
내용 필터링 요청
FilterContent
욕설 포함 시
스팸 감지 시
정상 댓글일 경우
CommentAccepted
ProfanityDetected
DB 저장 요청
StoredInDB
SpamDetected
UI 표시 요청
DisplayedOnUI


View Photos State Machine
Start
앱 실행 시 지도 화면 진입
Open Map Screen
사용자가 필터/정렬 설정을 선택함
Set Filter and Sort Option
필터 및 정렬 옵션이 설정됨
Load Matching Photos
조건에 맞는 사진을 성공적으로 불러옴
Display Photo Thumbnails
사용자가 썸네일을 클릭함
Select Photo for Detail
상세 정보 요청 완료
Display Photo Detail


Post Submission Flow State Machine
Start
사용자가 '글쓰기' 버튼 클릭
Click Write Post
사용자 인증 완료
UserAuthenticated
제목 및 본문 입력 완료
Enter Title and Content
콘텐츠 필터링 수행
Content Filtered
공격적 내용이 포함된 경우
콘텐츠가 정상이면 저장됨
Saved to DB (If Clean)
Rejected (If Offensive)
저장 완료 후 리스트에 표시
Displayed in List


Floor Plan Query State Machine
Start
사용자 건물 선택
Select Building
사용자 인증 확인
Verify Authentication
인증 성공 시 도면 요청
Query Floor Plan
도면 정보가 존재하는 경우
도면 정보가 없는 경우
Display Floor Plan
Display No Info Message