Use Case :

@startuml left to right direction actor "User" as u actor "Attendee" as a actor "Zoom" as z usecase "Log in to Zoom account" as UC1 usecase "Schedule meeting" as UC2 usecase "Generate meeting link and access code" as UC3 usecase "Send meeting invite" as UC4 usecase "Join meeting" as UC5 usecase "Start meeting" as UC6 usecase "Enable audio and video" as UC7 usecase "Share screen" as UC8 usecase "Share content" as UC9 usecase "Record meeting" as UC10 usecase "Transcribe meeting" as UC11 usecase "End meeting" as UC12 usecase "Leave meeting" as UC13

u --> UC1 u --> UC2 z --> UC3 z --> UC4 a --> UC5 a --> UC6 a --> UC7 a --> UC8 a --> UC9 z --> UC10 z --> UC11 a --> UC12 a --> UC13 @enduml

Activity :

@startuml title Zoom Activity Diagram start :User logs into Zoom account; if (Login successful?) then (yes) :User schedules a meeting; if (Meeting scheduled?) then (yes) :Zoom generates meeting link and access code; :Zoom sends meeting invite to attendees; :Attendees receive meeting invite; :Attendees join the meeting; if (Attendees have joined?) then (yes) :Meeting starts; if (Audio and video are enabled?) then (yes) :Participants can see and hear each other; if (Sharing screen is enabled?) then (yes) :Participants share their screens; if (Content is being shared?) then (yes) :Participants collaborate and communicate; else (no) :Ask participants to share content; endif endif :Meeting can be recorded; :Meeting can be transcribed; :Meeting can be ended; :Attendees leave the meeting; else (no) :Ask participants to enable audio and video; endif else (no) :Attendees can join the meeting later; endif else (no) :Ask user to schedule the meeting; endif else (no) :Ask user to log in to their Zoom account; endif stop @enduml

Class Diagram :

@startuml title Zoom Class Diagram

class User { -username : String -password : String -email : String +User(username: String, password: String, email: String) +getUsername() : String +setUsername(username: String) : void +getEmail() : String +setEmail(email: String) : void +signIn() : boolean +signUp() : boolean +scheduleMeeting() : boolean }

class Meeting { -id : String -host : User -attendees : List<User> -date : Date -startTime : Time -endTime : Time -duration : int -agenda : String -accessCode : String +Meeting(id: String, host: User, attendees: List<User>, date: Date, startTime: Time, endTime: Time, duration: int, agenda: String, accessCode: String) +getId() : String +getHost() : User +getAttendees() : List<User> +getDate() : Date +getStartTime() : Time +getEndTime() : Time +getDuration() : int +getAgenda() : String +getAccessCode() : String +generateAccessCode() : String +startMeeting() : boolean +endMeeting() : boolean +addAttendee(user: User) : boolean +removeAttendee(user: User) : boolean +updateAgenda(newAgenda: String) : boolean }

class Zoom { -meetings : List<Meeting> -users : List<User> +Zoom(meetings: List<Meeting>, users: List<User>) +getMeetings() : List<Meeting> +getUsers() : List<User> +createMeeting(host: User, attendees: List<User>, date: Date, startTime: Time, endTime: Time, agenda: String) : Meeting +cancelMeeting(meeting: Meeting) : boolean +registerUser(username: String, password: String, email: String) : User +getUser(username: String) : User +deleteUser(user: User) : boolean }

User "1" -- "\*" Meeting : attends

User "1" -- "\*" Meeting : hosts

Zoom "1" -- "\*" User : contains

Meeting "1" -- "1" Zoom : belongs to

@enduml

Sequence Diagram :

@startuml title Zoom Sequence Diagram

actor User participant Zoom participant Attendees

User -> Zoom: Log into account activate Zoom Zoom -> User: Login successful deactivate Zoom

User -> Zoom: Schedule meeting activate Zoom Zoom -> User: Meeting scheduled deactivate Zoom

User -> Zoom: Generate meeting link and access code activate Zoom Zoom -> User: Meeting link and access code deactivate Zoom

User -> Zoom: Send meeting invite to attendees activate Zoom Zoom -> Attendees: Meeting invite deactivate Zoom

Attendees -> Zoom: Join meeting activate Zoom Zoom -> Attendees: Meeting started deactivate Zoom

Attendees -> Zoom: Enable audio and video activate Zoom Zoom -> Attendees: Audio and video enabled deactivate Zoom

Attendees -> Zoom: Share screen activate Zoom Zoom -> Attendees: Screen sharing enabled deactivate Zoom

Attendees -> Zoom: Share content activate Zoom Zoom -> Attendees: Content sharing enabled deactivate Zoom

User -> Zoom: Record meeting activate Zoom Zoom -> User: Meeting recorded deactivate Zoom

User -> Zoom: Transcribe meeting activate Zoom Zoom -> User: Meeting transcribed deactivate Zoom

User -> Zoom: End meeting activate Zoom Zoom -> User: Meeting ended deactivate Zoom

Attendees -> Zoom: Leave meeting activate Zoom Zoom -> Attendees: Meeting ended deactivate Zoom

@enduml