

Teamify System Design - CRC Cards

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1 View Layer

Class: LoginView	
Responsibilities	Collaborators
Capture user credentials and trigger onLoginSubmit() or onRegisterSubmit() to initiate authentication	AuthenticationController
Display authentication status, success messages, or error feedback to the user interface	

Table 1: CRC Card for LoginView

Class: PartySearchView	
Responsibilities	Collaborators
Invoke onFilterChange() when users update search parameters (Rank, Mode, Region)	MatchmakingController
Use renderLobbyList(data) to dynamically display active parties returned by the API	
Provide interface triggers for users to request joining or leaving a specific party	

Table 2: CRC Card for PartySearchView

2 Controller Layer

Class: AuthenticationController	
Responsibilities	Collaborators
Act as the entry point for login/registration data via handleLogin() and handleRegister()	UserModel
Enforce security by verifying credentials through validatePasswordStrength()	LoginView
Coordinate account lifecycle by invoking UserModel.createUser() or findUserByEmail()	
Return authentication status or session tokens directly to the LoginView	

Table 3: CRC Card for AuthenticationController

Class: MatchmakingController	
Responsibilities	Collaborators
Execute searchLobbies() based on criteria (Rank, Mode, Region) from PartySearchView	PartyModel
Coordinate data flow between PartyModel and AuthenticationMiddleware	AuthenticationMiddleware
Invoke joinLobby() or leaveLobby() to modify party states in the database	PartySearchView

Table 4: CRC Card for MatchmakingController

3 Model Layer

Class: UserModel	
Responsibilities	Collaborators
Use <code>findUserByEmail()</code> or <code>createUser()</code> to interact with the SQL storage	SQLDatabase
Apply <code>hashPassword()</code> to sensitive data before storage to ensure user security	
Maintain user-specific state and "My Games" lists for account personalization	

Table 5: CRC Card for UserModel

Class: PartyModel	
Responsibilities	Collaborators
Run <code>getFilteredParties()</code> to pull active lobbies from the database based on search criteria	SQLDatabase
Execute <code>updatePartyMembership()</code> to record player joins, kicks, or leaves in the database	

Table 6: CRC Card for PartyModel