

## 5.1 Class Responsibility Collaborator (CRC) cards<sup>1</sup>

### 5.1.1 View

Class: GlobalGalleryJSP

<b>Responsibilities</b>	<b>Collaborators</b>
Generates the HTML for the global gallery.	PersonalGalleryManager

Class: PersonalGalleryJSP

<b>Responsibilities</b>	<b>Collaborators</b>
Generates the HTML for the personal gallery.	PersonalGalleryManager

Class: VoteJSP

<b>Responsibilities</b>	<b>Collaborators</b>
Retrieves and registers a user vote Generates HTML for voting page.	VoteManager

Class: SearchJSP

<b>Responsibilities</b>	<b>Collaborators</b>
Generates the HTML for the search result page.	SearchManager

Class: GuestBookJSP

<b>Responsibilities</b>	<b>Collaborators</b>
Generates HTML for the guestbook of a user.	GuestBookManager

Class: BattleArenaJSP

<b>Responsibilities</b>	<b>Collaborators</b>
Generates HTML along with the Flash component	None

Class: PlayingArenaJSP

<b>Responsibilities</b>	<b>Collaborators</b>
Generates HTML for the Playing arena Page.	None

Class: LoginJSP

<b>Responsibilities</b>	<b>Collaborators</b>
Generates the HTML to handle user login	AuthorityManager

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<sup>1</sup> <http://c2.com/doc/oops1a89/paper.html>

Class: RegisterJSP

<b>Responsibilities</b>	<b>Collaborators</b>
Generates the HTML to handle user registration	RegisterManager

## 5.1.2 Controller

Class: PersonalGalleryManager

<b>Responsibilities</b>	<b>Collaborators</b>
Does the actual work. Gathers and returns a list with information about different competition a user has entered.	CompetitionAgent

Class: PersonalGalleryManager

<b>Responsibilities</b>	<b>Collaborators</b>
Does the actual work. Gathers and returns a list with information about different competition a user has entered.	CompetitionAgent

Class: VoteManager

<b>Responsibilities</b>	<b>Collaborators</b>
Does the actual work.  Retrieves a user vote, looks up how many real votes it corresponds to and registers it with the corresponding competition. Then gives the voter a predefined amount of AP for voting. Voting can only be done once for every competition and user.	APUtil  CompetitionAgent

Class: SearchManager

<b>Responsibilities</b>	<b>Collaborators</b>
Does the actual work. Searches for users based on some given parameters and returns a list with the result.	UserAgent

Class: GuestBookManager

<b>Responsibilities</b>	<b>Collaborators</b>
Does the actual work.  Returns a users guestbook posts based on a timestamp and count.	GuestBookAgent

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Class: CompetitionAgent

<b>Responsibilities</b>	<b>Collaborators</b>
Registers a vote from a user with the corresponding competition. Looks up and returns the different competitions which a user is connected to in the database.	Competition

Class: UserAgent

<b>Responsibilities</b>	<b>Collaborators</b>
Creates a user in the database. Retrieves users from the database.	User

Class: GuestBookAgent

<b>Responsibilities</b>	<b>Collaborators</b>
Creates a guestbook post in the database. Retrieves guestbook posts from the database.	GuestBookPost

Class: ChallengeServlet

<b>Responsibilities</b>	<b>Collaborators</b>
Handle user signup in the playing arena. Handle user challenge another user	PlayingArenaManager

Class: ChatServlet

<b>Responsibilities</b>	<b>Collaborators</b>
Handle get and post chatmessages	PlayingArenaManager

Class: PlayingArenaManager

<b>Responsibilities</b>	<b>Collaborators</b>
Get and post chatmessages.	ChatManager
Handle challenges. Handle Playing arena sign up.	ChallengeManager

Class: ChatManager

<b>Responsibilities</b>	<b>Collaborators</b>
Get and Post ChatMessages	ChatMessage

Class: ChallengeManager

<b>Responsibilities</b>	<b>Collaborators</b>
Keep track of users in the Playing arena. Create competitions.	ChallengeManagerUserEntry. CompetitionAgent

Class: AuthorityManager

<b>Responsibilities</b>	<b>Collaborators</b>
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Handles user authentication	UserAgent
Handles user rights, used by all of the interfaces outward to check if a session/user has the right to perform the requested action.	UserAgent

Class: RegisterManager

<b>Responsibilities</b>	<b>Collaborators</b>
Handles user registration	UserAgent

### 5.1.3 Model

Class: Competition

<b>Responsibilities</b>	<b>Collaborators</b>
Holds information about a competition. Is an entity that is stored in the database.	Topic Combatant

Class: Topic

<b>Responsibilities</b>	<b>Collaborators</b>
Holds information about a topic. Is an entity that is stored in the database.	None

Class: Combatant

<b>Responsibilities</b>	<b>Collaborators</b>
Holds information about a combatant. Is an entity that is stored in the database.	Picture

Class: Picture

<b>Responsibilities</b>	<b>Collaborators</b>
Holds information about a picture. Is an entity that is stored in the database.	None

Class: Class

<b>Responsibilities</b>	<b>Collaborators</b>
Holds information about a user class. Is an entity that is stored in the database.	None

Class: GuestBookPost

<b>Responsibilities</b>	<b>Collaborators</b>
Holds information about a guest book post. Is an entity that is stored in the database.	User

Class: News

<b>Responsibilities</b>	<b>Collaborators</b>
Holds information about the system that is presented as news. Is an entity that is stored in the database.	User

Class: User

<b>Responsibilities</b>	<b>Collaborators</b>
Holds information about a user. Is an entity that is stored in the database.	UserProfile

Class: UserProfile

<b>Responsibilities</b>	<b>Collaborators</b>
Holds information about a user's profile. Is an entity that is stored in the database.	None

Class: ChallengeManagerUserEntry

<b>Responsibilities</b>	<b>Collaborators</b>
Keep track of all ChallengeRequests	ChallengeRequest
Keep track of ChallengeMessages.	Message

Class: ChallengeRequest

<b>Responsibilities</b>	<b>Collaborators</b>
Holds information about a challenge.	ChallengeManagerUserEntry

Class: Message

<b>Responsibilities</b>	<b>Collaborators</b>
A base class for returning various messages to the user.	None

Class: TextMessage

<b>Responsibilities</b>	<b>Collaborators</b>
A sub class of Message, for text messages to be returned to the user.	None

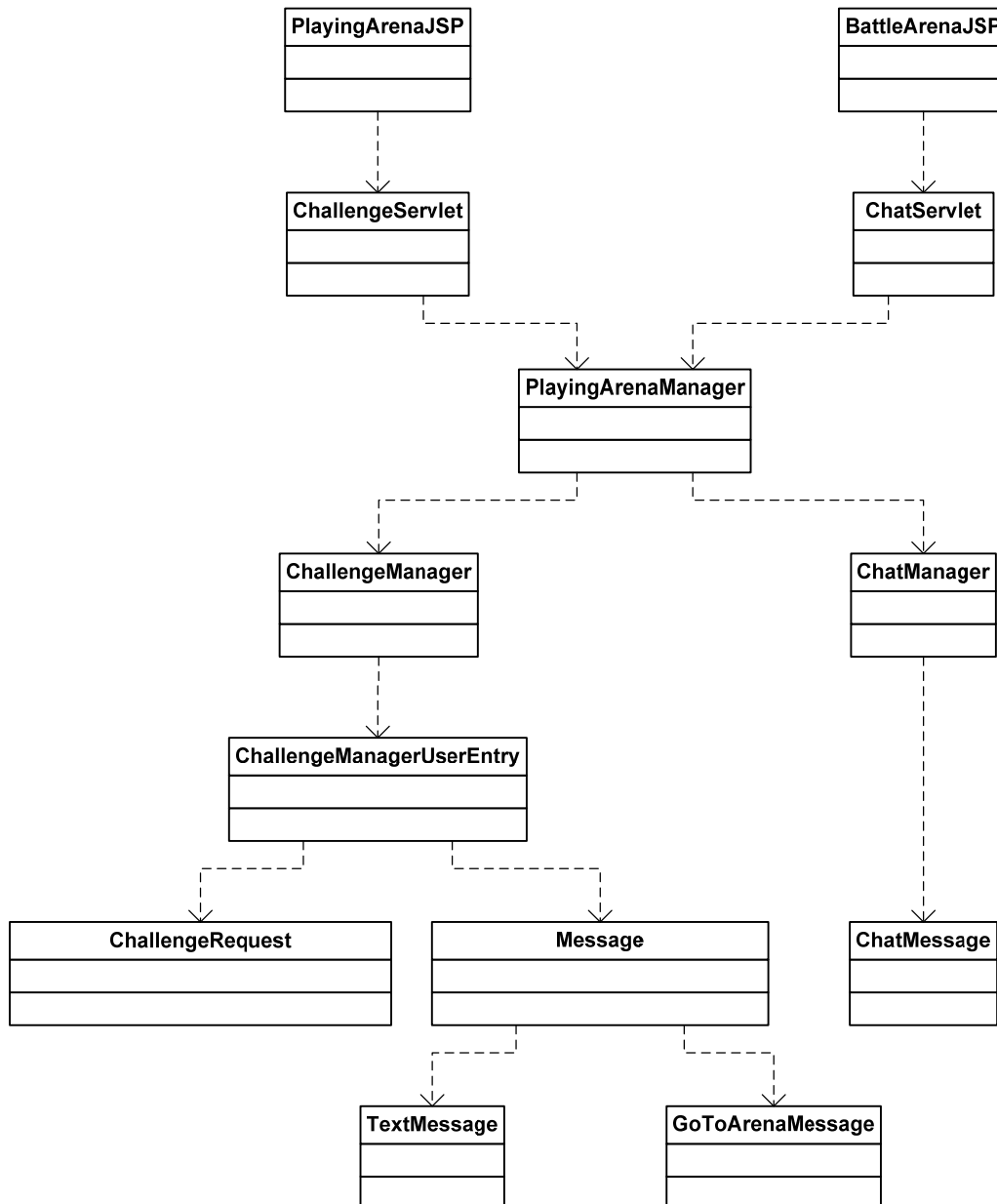
Class: GoToArenaMessage

<b>Responsibilities</b>	<b>Collaborators</b>
A sub class of Message, tells the user client application to go to the battle arena.	None

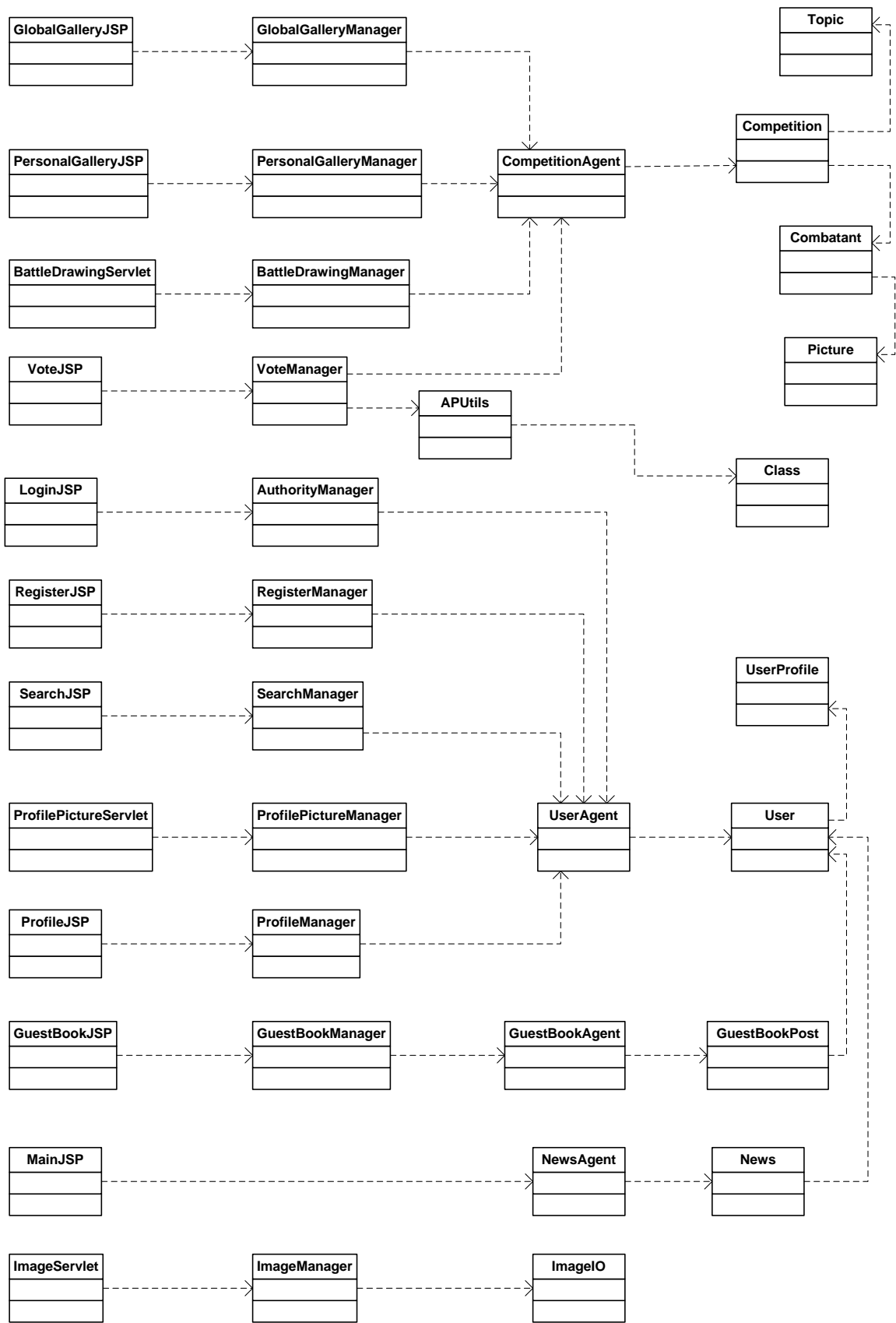
Class: ChatMessage

<b>Responsibilities</b>	<b>Collaborators</b>
A class for posting messages in the chat.	None

## 5.2 Class diagram<sup>2</sup>

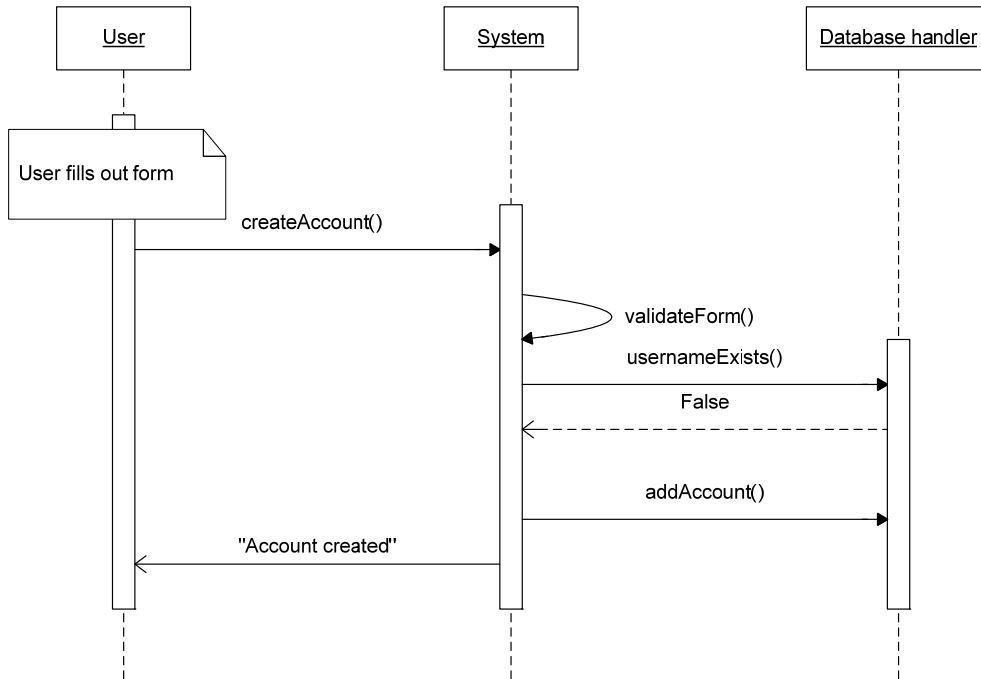


<sup>2</sup> <http://dn.codegear.com/article/31863#classdiagrams>

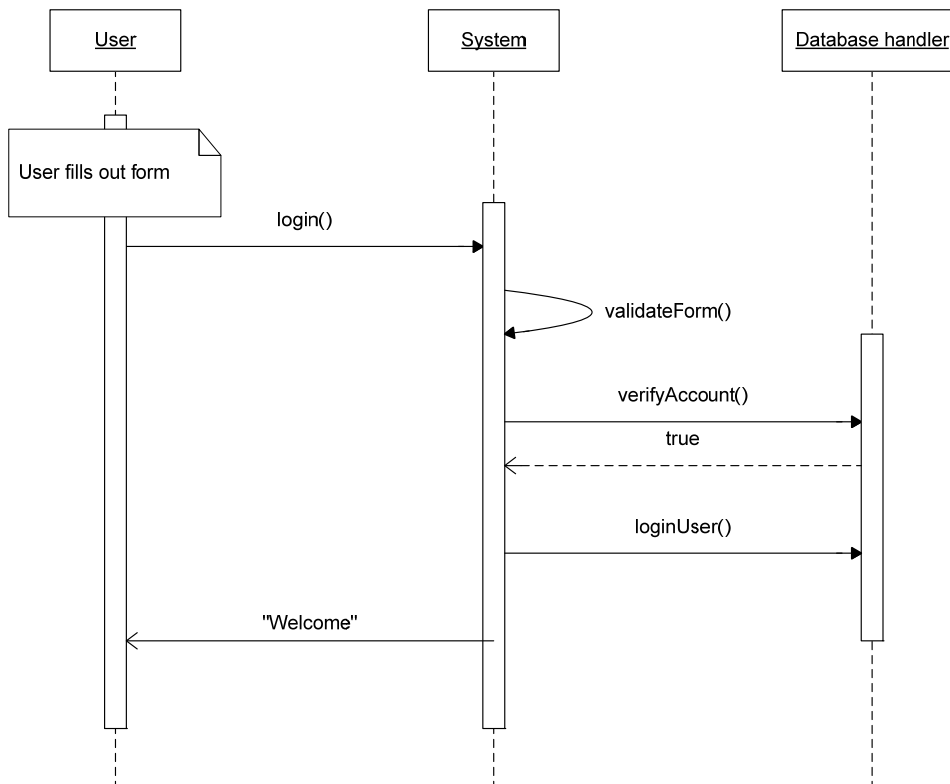


## 5.3 Interaction diagrams

### 5.3.1 Use case 1

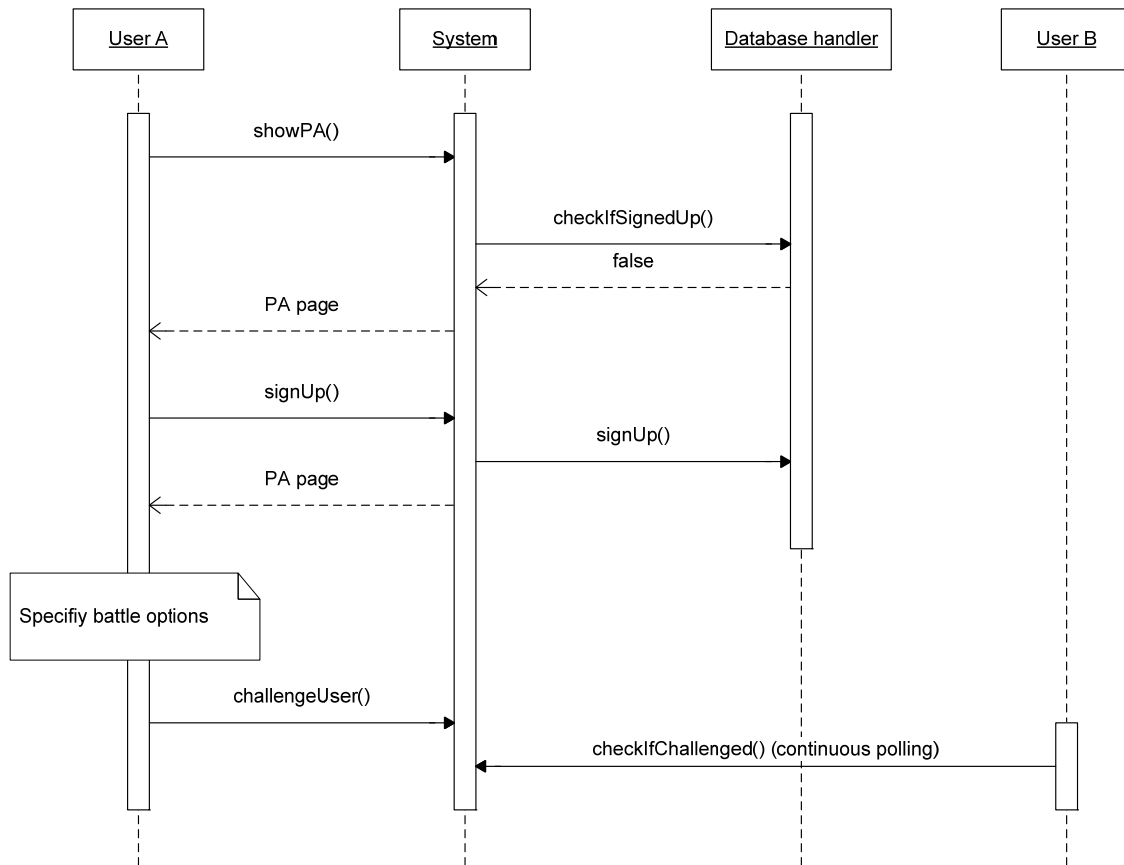


### 5.3.2 Use case 2

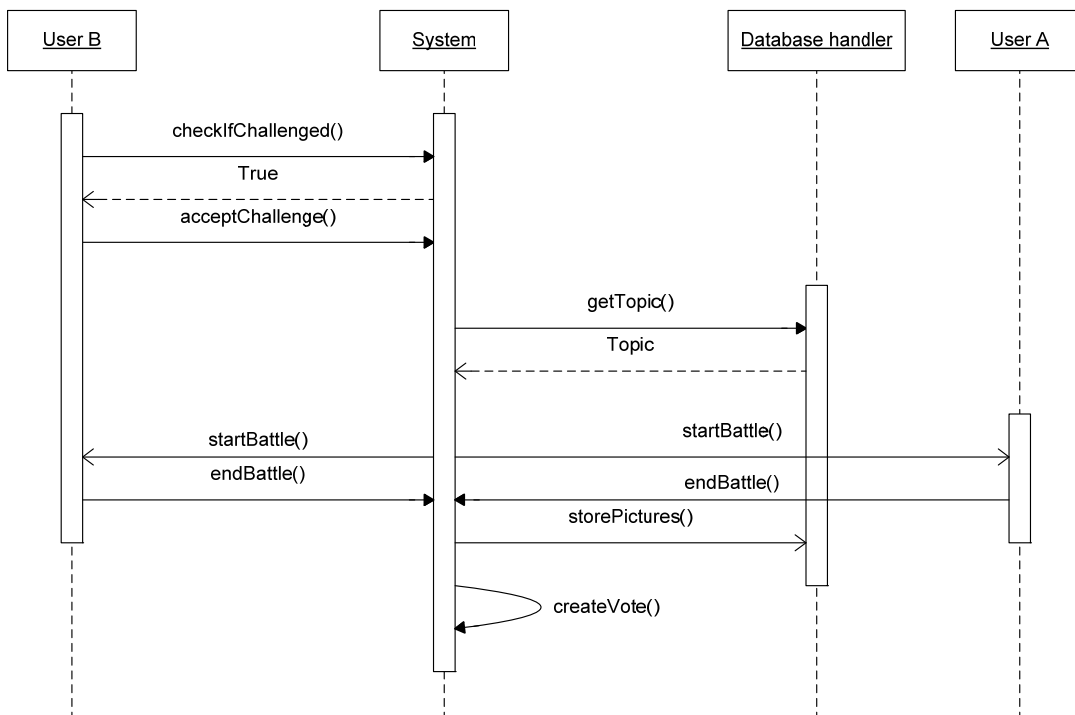




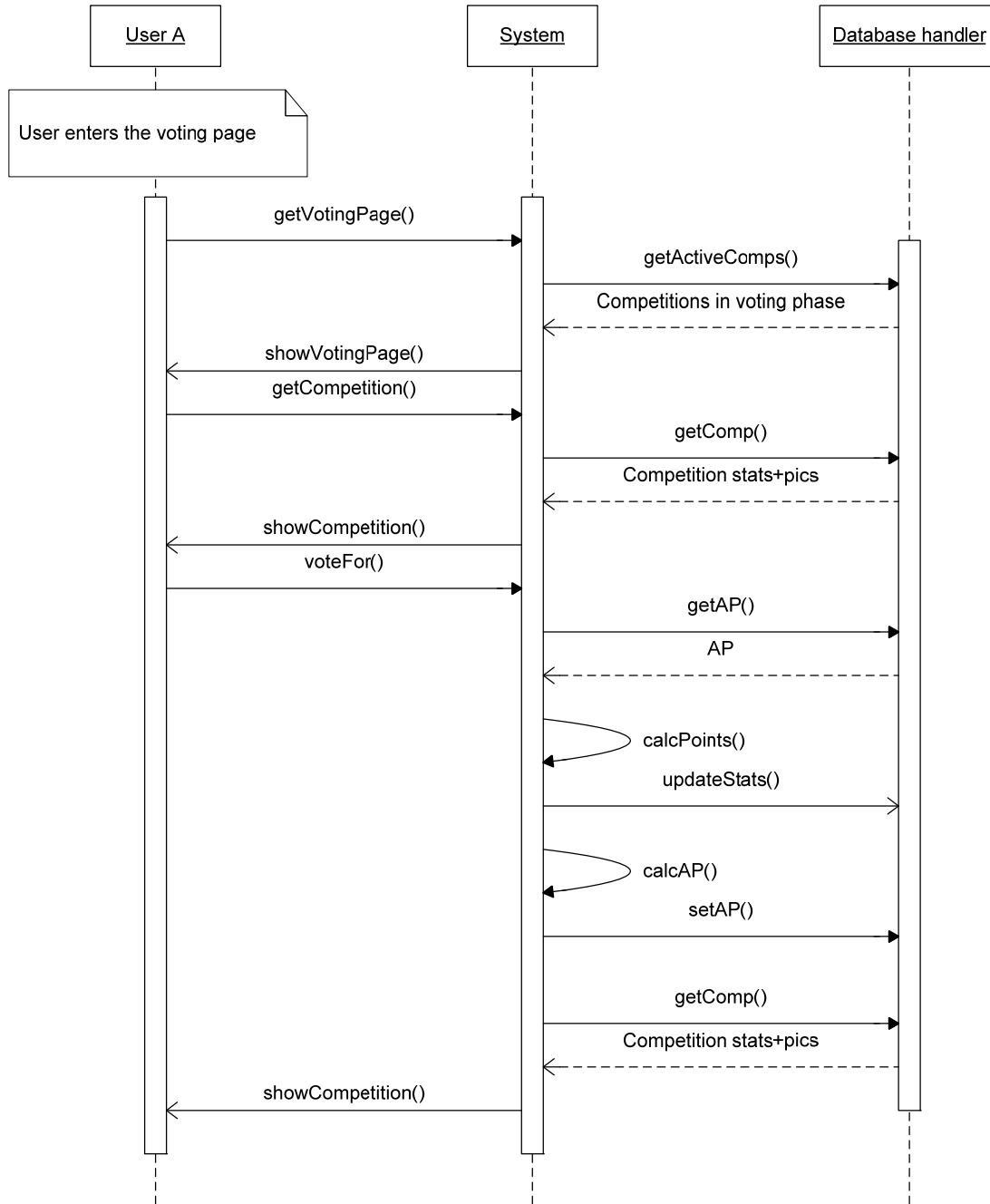
### 5.3.3 Use case 3



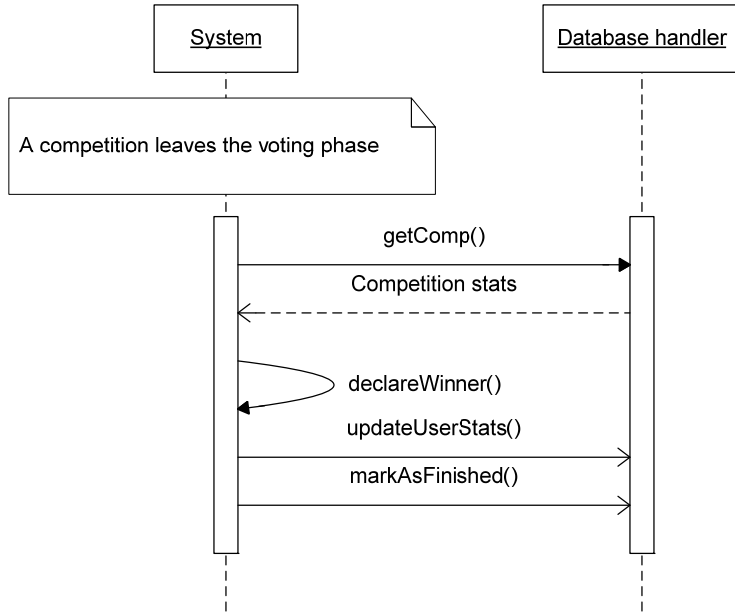
### 5.3.4 Use case 4



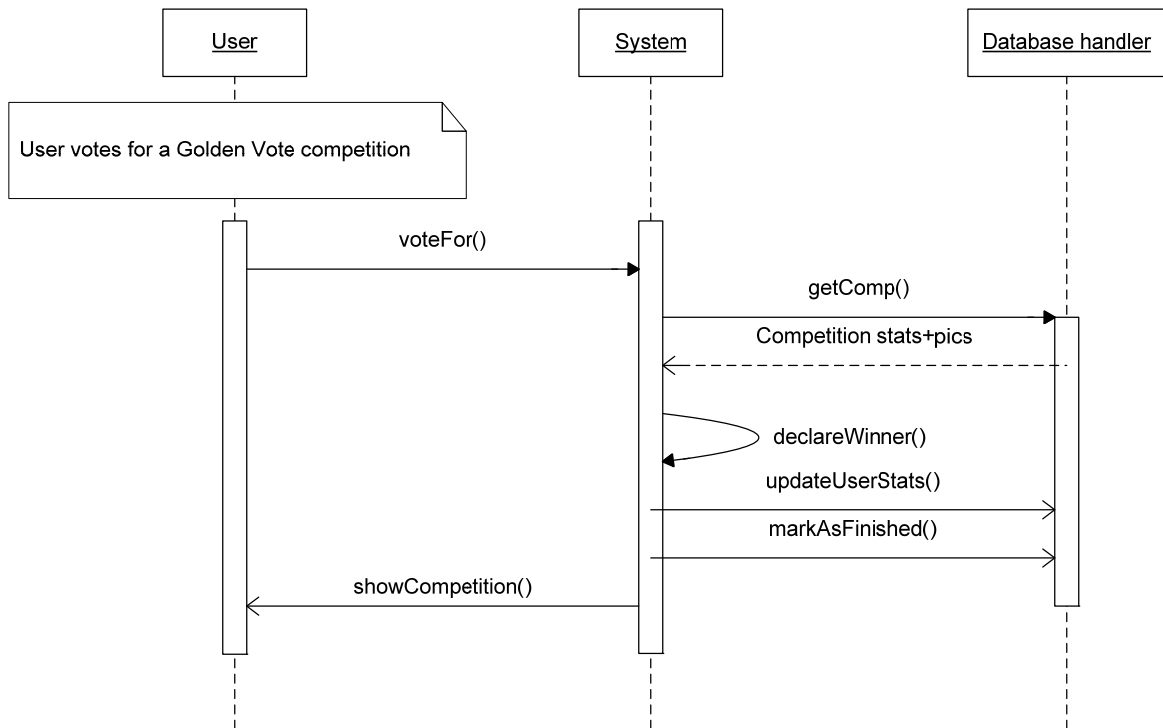
### 5.3.5 Use case 5



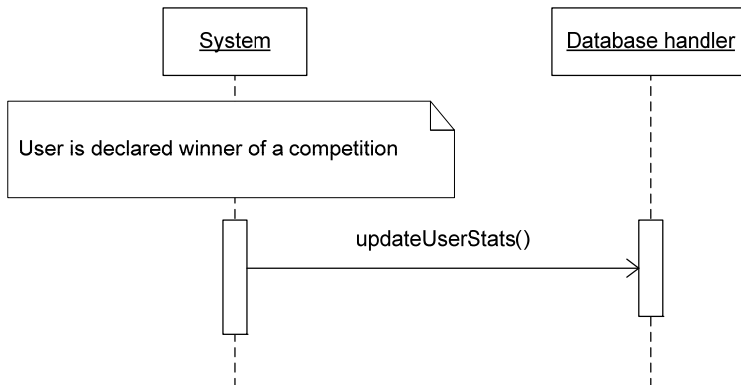
### 5.3.6 Use case 6



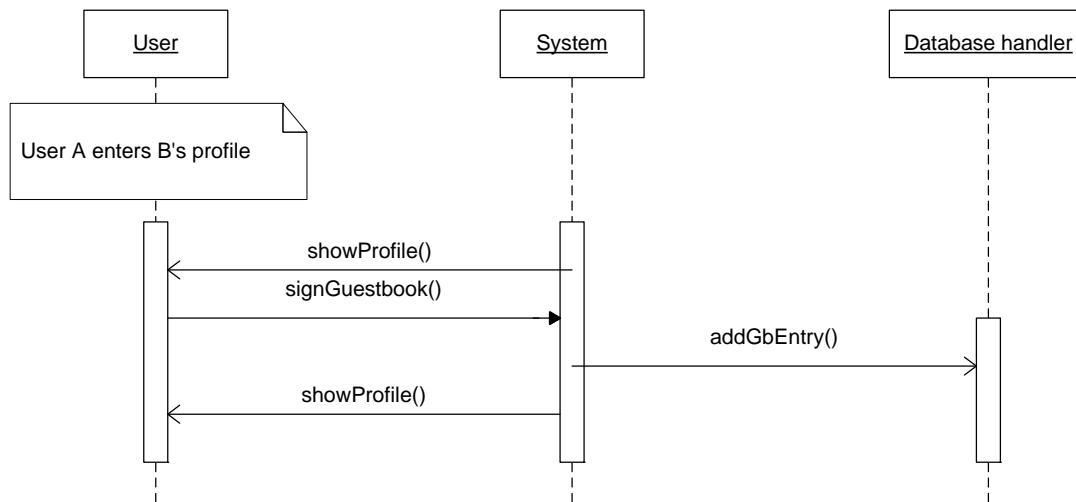
### 5.3.7 Use case 7



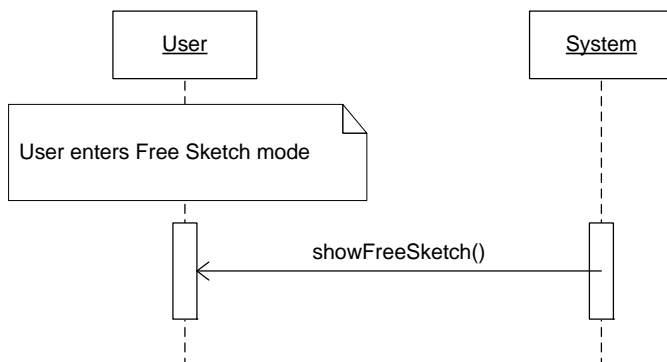
### 5.3.8 Use case 8



### 5.3.9 Use case 9



### 5.3.10 Use case 10



### 5.3.11 Use case 11

