Create a UML for the above system. Include an activity diagram, component diagram and a component diagram. Indicate all the relationships and provide a PlantUML code for each diagram

Generate the methods of Requirements Engineering by mapping some requirements in airtable for the above system

**Generate the methods of Requirements Engineering by mapping some requirements in airtable for the above system. Provide a template to upload on airtable**

**Airtable Template:**

**Table 1: Functional Requirements**

| **Requirement ID** | **Title** | **Description** | **Priority** | **Status** | **Assigned To** |
| --- | --- | --- | --- | --- | --- |
| FR-001 | User Authentication | Users must be able to log in with their usernames and passwords | High | Not Started | [Assignee] |
| FR-002 | Admin Functionality | Admins can create quizzes with multiple-choice questions | High | Not Started | [Assignee] |
| FR-003 | Student Functionality | Students can answer quizzes with multiple-choice questions | High | Not Started | [Assignee] |

**Table 2: Non-functional Requirements**

| **Requirement ID** | **Title** | **Description** | **Priority** | **Status** | **Assigned To** |
| --- | --- | --- | --- | --- | --- |
| NFR-001 | Security | User passwords should be hashed and stored securely | High | Not Started | [Assignee] |
| NFR-002 | Usability | The system should provide a clear and intuitive console-based interface | Medium | Not Started | [Assignee] |
| NFR-003 | Reliability | The system should handle errors gracefully | Medium | Not Started | [Assignee] |
| NFR-004 | Scalability | The system should be designed to handle a growing number of quizzes and users | Medium | Not Started | [Assignee] |

**Table 3: User Stories**

| **Story ID** | **Title** | **As a...** | **I want to...** | **So that...** | **Priority** | **Status** | **Assigned To** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| US-001 | User Login | Administrator | log in with my username and password | access the admin functionalities | High | Not Started | [Assignee] |
| US-002 | Quiz Creation | Administrator | create quizzes with multiple-choice questions | assess the students' knowledge | High | Not Started | [Assignee] |
| US-003 | Quiz Taking | Student | answer quizzes with multiple-choice questions | test my understanding of the topic | High | Not Started | [Assignee] |

**Note:**

* You can customize the columns based on your specific needs.
* **[Assignee]** is a placeholder for the person responsible for each requirement or user story.
* Use Airtable's features for collaboration, comments, and attachments to enhance communication and documentation.

**Generate the methods of Requirements Engineering by mapping some requirements in airtable for the above system. Provide a template to upload on Trello**

### Trello Template:

#### **Board: Quiz Management System**

**List 1: Functional Requirements**

1. **User Authentication**
   * Description: Users must be able to log in with their usernames and passwords.
   * Priority: High
   * Status: Not Started
   * Assigned To: [Assignee]
2. **Admin Functionality**
   * Description: Admins can create quizzes with multiple-choice questions.
   * Priority: High
   * Status: Not Started
   * Assigned To: [Assignee]
3. **Student Functionality**
   * Description: Students can answer quizzes with multiple-choice questions.
   * Priority: High
   * Status: Not Started
   * Assigned To: [Assignee]

**List 2: Non-functional Requirements**

1. **Security**
   * Description: User passwords should be hashed and stored securely.
   * Priority: High
   * Status: Not Started
   * Assigned To: [Assignee]
2. **Usability**
   * Description: The system should provide a clear and intuitive console-based interface.
   * Priority: Medium
   * Status: Not Started
   * Assigned To: [Assignee]
3. **Reliability**
   * Description: The system should handle errors gracefully.
   * Priority: Medium
   * Status: Not Started
   * Assigned To: [Assignee]
4. **Scalability**
   * Description: The system should be designed to handle a growing number of quizzes and users.
   * Priority: Medium
   * Status: Not Started
   * Assigned To: [Assignee]

**List 3: User Stories**

1. **User Login (US-001)**
   * As a...: Administrator
   * I want to...: log in with my username and password
   * So that...: access the admin functionalities
   * Priority: High
   * Status: Not Started
   * Assigned To: [Assignee]
2. **Quiz Creation (US-002)**
   * As a...: Administrator
   * I want to...: create quizzes with multiple-choice questions
   * So that...: assess the students' knowledge
   * Priority: High
   * Status: Not Started
   * Assigned To: [Assignee]
3. **Quiz Taking (US-003)**
   * As a...: Student
   * I want to...: answer quizzes with multiple-choice questions
   * So that...: test my understanding of the topic
   * Priority: High
   * Status: Not Started
   * Assigned To: [Assignee]

### Note:

* You can customize the lists and cards based on your specific needs.
* **[Assignee]** is a placeholder for the person responsible for each requirement or user story.
* Trello boards allow for easy collaboration and tracking of tasks, and you can use labels, due dates, and attachments to enhance communication and documentation.