**1. Define the Scope**

**Scope:**

**Process Name:** *Online Quiz Administration and Reporting*

**Context:** This process models how a teacher creates a quiz, students take the quiz, and the system generates results and analytics for decision-making.

**Objective:**

* Automate quiz delivery and scoring.
* Provide performance analytics to support academic decisions.
* Enable real-time progress tracking for educators.

**Expected Outcomes:**

* Faster quiz creation and grading.
* Clear tracking of student performance.
* Centralized data for academic reporting.

**2. Identify Key Entities**

| **Entity** | **Description** |
| --- | --- |
| **Teacher** | Creates quizzes, adds questions, views reports. |
| **Student** | Registers, takes quizzes, views scores. |
| **Quiz System (App)** | Handles user requests, processes quiz logic, stores results. |
| **Database** | Stores student data, quiz questions, and scores. |
| **MIS Dashboard** | Displays reports and analytics to teachers and admins.Swimlanes and Actors **1. Teacher**   * **Start Event**: Teacher logs into the system. * **Create Quiz**: Inputs quiz title and description. * **Add Questions**: Adds multiple questions to the quiz. * **Review and Publish**: Finalizes and publishes quiz for students.   **2. Student**   * **Register/Login**: Student signs in or registers. * **Take Quiz**: Attempts the quiz during the allowed time. * **Submit Answers**: Submits completed quiz for grading.   **3. System (Application Logic)**   * **Activate Quiz**: Makes the quiz available based on scheduling. * **Auto-Grade Quiz**: Scores quiz based on correct answers. * **Store Results**: Saves scores and responses in the database. * **Generate Analytics**: Prepares performance data (e.g., average score, high/low, etc.).   **4. Database**   * **Store Quiz and Questions**: Persists quiz and question content. * **Save Student Scores**: Stores individual results after submission. * **Support MIS Dashboard**: Feeds structured data to dashboards.   **Decision Points**   * **Is Quiz Active?**   + If *Yes*, student can proceed.   + If *No*, block attempt and alert student. * **Is Submission Complete?**   + If *Yes*, trigger grading.   + If *No*, alert student to complete or time out.   **MIS Support and Benefits**  This business process model aligns with MIS goals by:   * **Automating operations** like grading and quiz scheduling. * **Tracking user activity and performance** using structured database records. * **Generating reports** to assist in academic decisions, identify weak students, and improve course quality.   MIS helps **teachers and administrators** make informed decisions using the data generated by this process.  **Conclusion**  This BPMN diagram maps a real-world MIS scenario — quiz administration and evaluation — ensuring clarity in system operations and enhancing decision-making through reliable data flows. |

