**Final Project**“Fikra Online”  
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**1. Brief Description of the System**

* **Project Idea**: An Arabic online education platform where students can create live study rooms with available teachers for subjects like tech and math…etc.
* **Purpose**: Provide an on-demand space for students to connect with qualified teachers for live, interactive study sessions, fostering real-time learning and collaboration.
* **Financial Model**: Revenue can come from subscriptions for premium features (such as recorded sessions, private rooms, etc.) and commissions from sessions.

**2. Functional Requirements**

These are the specific features that the system needs:

* **User Authentication**: Allow students and teachers to register, log in, and manage their profiles.
* **Live Study Room Creation**: Students can create and join live rooms to study specific subjects with available teachers.
* **Real-Time Communication**: Enable video calls, chat, and file sharing between students and teachers within study rooms.
* **Search & Matchmaking**: Match students with available teachers based on subject expertise, ratings, and availability.
* **Payment System**: Facilitate payments for sessions between students and teachers, with the platform taking a commission.
* **Rating & Feedback**: Allow students to rate teachers after each session and leave feedback.

**3. Non-Functional Requirements**

These focus on the quality and performance of the system:

* **Performance**: The system should handle multiple concurrent live sessions without lags or downtimes.
* **Scalability**: As the user base grows, the platform should scale to accommodate new users without major architectural changes.
* **Security**: Data must be protected, with encrypted communication (e.g., using HTTPS) and secure user authentication (e.g., two-factor authentication).
* **Usability**: The platform should be easy to navigate for students and teachers, with a simple and intuitive user interface.
* **Reliability**: The system should be stable, with uptime guarantees for live sessions.

**4. Stakeholders**

* **Students**: End-users who want to access study rooms and learn from teachers.
* **Teachers**: End-users who provide teaching services and conduct live sessions.
* **Platform Admins**: Manage the system, including user accounts, sessions, and overall platform health.
* **Payment Processors**: Handle transactions between students, teachers, and the platform.

**5. System Goals**

* **Provide Seamless Learning**: Offer a platform that connects students with available teachers instantly for live learning sessions.
* **Monetize Education**: Create a financially sustainable platform through subscriptions and commission-based payments.
* **Enhance Engagement**: Ensure user retention through intuitive user experience and high-quality live communication tools.
* **Data-Driven**: Gather insights from usage data to optimize the platform, recommend teachers, and personalize the user experience.

**6. Process Sequence Within the System**

* **Registration/Login**: Users (both students and teachers) register or log in to access the platform.
* **Profile Setup**: Teachers set up their profiles, subjects they teach, availability, and rates. Students can set preferences for subjects they want to study.
* **Room Creation**: A student creates a live study room and requests a teacher for a specific subject or based on contract between student and teacher .
* **Matchmaking**: The system matches the student with available teachers based on subject expertise, ratings, and real-time availability.
* **Live Session**: The matched teacher joins the room, and the live session (video, chat, file sharing) starts.
* **Payment & Feedback**: Upon completion of the session, the student pays for the lesson. The student leaves feedback and rates the teacher.
* **Follow-Up**: Students can save session details and book follow-up lessons with the same teacher.

**7. Expected Risks in the Project**

* **Technical Issues**: Live communication features (video calls, real-time chat) could face performance issues, especially with high concurrency.
* **User Acquisition**: Attracting a balanced number of both teachers and students could be challenging in the early stages.
* **Security Risks**: Handling sensitive data, especially financial transactions and personal information, introduces security risks.
* **Teacher Quality**: Ensuring that the platform maintains a high quality of teaching through rigorous screening or teacher certification can be a challenge.
* **Scalability**: Rapid user growth may demand high server capacity, which can impact performance and cost.

**8. Use Case Diagram**

Here’s a breakdown of the key use cases, which you would include in your diagram:

* **User Registration/Login**: Users (students and teachers) sign up and log in.
* **Create Study Room**: Students create study rooms based on the subject they want help with.
* **Join Study Room**: Teachers join available rooms as per their expertise and availability.
* **Conduct Live Session**: Both students and teachers engage in real-time communication (video, chat, file sharing).
* **Process Payment**: Payment system handles transactions after each session.
* **Leave Feedback**: Students rate teachers and leave feedback post-session.