# Live streaming platform-First presentation

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## Distribution of work

#### 余秉修: Frontend Developer

- Develop the user interface (UI) for the live streaming platform.
- Integrate the video player and implement playback functionality.
- Create the chat feature and UI for displaying subtitles.

#### 李家睿: Backend Developer

- Set up the backend environment and database.
- Develop APIs for stream management and user authentication.
- Integrate Azure Cognitive Services for real-time subtitles and manage chat functionality.

#### 曾國竣: Platform Setup (DevOps)

- Provision Azure resources (Blob Storage, CDN).
- Configure Azure for video streaming and global content delivery.
- Conduct stress testing and monitor platform performance.

# Schedule

Task description	Start date	Finish date		October 2024													November 2024																					
			Progress	7 [1] 8	9 10	0 11 1	12 13	14	15 16	6 17	18 1	9 20	21 2	2 23	24 :	25 26	3 27	28 2	29 30	31	1 2	3	4	5 6	7	8	9 10	11	12 1	3 14	15	16 17	18	19 2	0 21	22 2	23 24	25
Azure service setup( Blob storage)	10/7/2024	10/14/2024	0%																																			
Research integrating OBS with Azure	10/7/2024	10/14/2024	0%														H																					
3 Integrate a video player with Azure	10/14/2024	10/21/2024	0%																																			
Use HLS and optimize CDN	10/14/2024	10/21/2024	0%																																			
Functional playback feature (optional)	10/14/2024	10/21/2024	0%				-								$\Box$	-	-						-			-						-			-			Н
5 Set CDN to stream in low- latency	10/21/2024	10/28/2024	0%																																			
Build a platfrom UI/UX	10/21/2024	10/28/2024	0%																							-	-					-			-			
3 Integrate Azure AD for login (optional)	10/28/2024	11/4/2024 [	0%																																			
Build API to handle metadata	10/28/2024	11/4/2024 [	8 0%														1									-						-		-	-			Н
10 Basic chat feature using Azure SignalR	11/04/2024	11/11	0%																																			
11 Subtitle using Azure Cognitive Service	11/11/2024	11/18/2024	0%														t									+												
12 Stress tests	11/11/2024	11/18/2024	0%																																			
13 Performance improvements	11/11/2024	11/18/2024	0%														-		-																			
14 Final UI/UX improvements	11/18/2024	11/25/2024	0%																																			
15 Bug fixes	11/18/2024	11/25/2024	0%																																			

# Expected features

#### **Low-Latency Live Streaming:**

Supports low-latency streaming for real-time viewing.

### Video Playback:

Integrated video player using HLS protocols for smooth playback.

### **User-Friendly Interface:**

Simple and intuitive UI for easy navigation and access to live streams.

### Subtitle Support:

 Automatic real-time subtitles generated using speech-to-text services for enhanced accessibility.

# Expected features

### Optional User Login:

Users can choose to log in using Azure AD, but it is not mandatory.

#### Real-Time Chat:

Basic chat functionality for viewer interaction during live streams.

### **Stream Management**:

Streamers can easily start and stop live streams using tools like OBS

### Global Streaming with CDN:

Utilizes Azure CDN for fast and reliable streaming worldwide.