# Operation Contracts
## for
# Soccer Live

**Version**: 1.0
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## Contents

# Revision History

| Name | Date | Reason For Changes | Version |
|------|------|--------------------|---------|
|      |      |                    |         |
|      |      |                    |         |

**Operation Contracts for Soccer Live**

# 1. Operation: Request Match Stream

| Field | Details |
|---|---|
| Name | `requestMatchStream()` |
| Responsibility | Start streaming the selected match to the user. |
| Preconditions | User is logged in and the selected match is available for streaming. |
| Postconditions | - The match stream is initiated.<br>- Stream data is sent to the user.<br>- User receives a confirmation of the stream start. |
| Exceptions | - Match not available.<br>- Network issues or connectivity problems.<br>- User not authenticated.<br>- Server overload or downtime. |

# 2. Operation: Start Streaming Match

| Field | Details |
|---|---|
| Name | `startStreamingMatch()` |
| Responsibility | Initiate the streaming of the selected match and provide stream data. |
| Preconditions | The requested match is ongoing and the streaming service is operational. |
| Postconditions | - Stream data is successfully fetched.<br>- Video feed starts with a stable connection.<br>- User receives a video playback interface. |
| Exceptions | - Match stream unavailable.<br>- Server error or data retrieval failure.<br>- Insufficient user permissions.<br>- Stream quality issues. |

## 3. Operation: Select Preferred Language

| Field | Details |
| --- | --- |
| Name | selectPreferredLanguage() |
| Responsibility | Apply the user's preferred language to the match stream. |
| Preconditions | User has selected a preferred language from the available options. |
| Postconditions | - Language pack is successfully retrieved.<br>- Stream audio is updated with the selected language.<br>- User receives confirmation of language change. |
| Exceptions | - Language pack not found.<br>- Invalid language selection by the user.<br>- Language service unavailable.<br>- Language update failure. |

## 4. Operation: Low Bandwidth

| Field | Details |
| --- | --- |
| Name | LowBandwidthConditions() |
| Responsibility | Continuously monitor network quality and adjust the stream quality accordingly. |
| Preconditions | User is actively streaming the match. |
| Postconditions | - Network quality is assessed periodically.<br>- Optimal stream quality is determined and applied.<br>- User experience is maintained with minimal interruptions. |
| Exceptions | - Network monitoring service failure.<br>- Unstable network causing frequent fluctuations.<br>- Quality adjustment fails.<br>- User network disconnected. |

## 5. **Operation: Generate Live Update Notification**

| Field | Details |
|---|---|
| **Name** | generateLiveUpdate() |
| **Responsibility** | Create a live update notification for the ongoing match. |
| **Preconditions** | Match is in progress and updates are enabled for the user. |
| **Postconditions** | - Notification content is prepared.<br>- User receives a live update notification.<br>- Notification log is updated for tracking. |
| **Exceptions** | - Notification service failure.<br>- User has disabled notifications.<br>- Live update data unavailable.<br>- Notification delivery error. |

## 6. **Operation: Share Match on Social Media**

| Field | Details |
|---|---|
| **Name** | shareMatchOnSocialMedia() |
| **Responsibility** | Generate a shareable link for the current match and post it to the selected social media platform. |
| **Preconditions** | User has opted to share the match and social media integration is active. |
| **Postconditions** | - Shareable link is created.<br>- User receives a confirmation of sharing.<br>- Match details are posted to the selected platform. |
| **Exceptions** | - Social media service unavailable.<br>- Invalid social media credentials.<br>- Link generation failure.<br>- Sharing action cancelled by user. |

## 7. Operation: Continue Watching Stream

| Field | Details |
|---|---|
| **Name** | continueWatchingStream() |
| **Responsibility** | Allow the user to continue watching the match stream without interruption. |
| **Preconditions** | Stream is ongoing and the user has not exited the stream. |
| **Postconditions** | - User view session is maintained.<br>- Stream data continues to flow without interruption.<br>- Playback controls remain available to the user. |
| **Exceptions** | - Stream interrupted due to network issues.<br>- User session expired or logged out.<br>- Playback control error.<br>- Stream server disconnected. |