Crazy cock

Brief Description

This service provides external consumers with access to the game "Crazy Cock". A player increases the bet multiplier by moving the character forward step by step. Each step carries a risk of the character's death, but the user can cash out their winnings at any point during the game.

The goal is to guide the character to the end without dying and achieve the maximum possible payout.

> **Step** – Moving the character to the adjacent cell to the right.
> **Successful step** – The character survives, and the bet multiplier increases.
> **Unsuccessful step** – The character dies, and the game ends.
> **Death** – The character dies.
> **Standard death** – The character is killed by a falling egg.
> **Wheel of Fortune** – A random selection of one of the outcomes on the sectors.

The game operates with the following mechanics:

1. **Setting Up and Starting the Game**:
   The user sets the bet amount and starts the game, controlling a character that moves across the game field.
2. **Game Field Cells**:
   Cells on the field display win multipliers. One of the cells contains a **mine**.
3. **Wheel of Fortune**:
   A secondary gameplay element that influences the game outcome.
4. **Cashout Option**:
   The player can **cash out their winnings** at any time (via the "Cashout" button) or continue moving forward.
5. **Success Probability Formula**:
   The chance of a successful move is calculated using a formula that incorporates **RTP (Return to Player)**.
6. **Final Cell Reward**:
   Reaching the final cell grants the user the **maximum payout**.
7. **Spacebar Actions**:
   Pressing the **spacebar** allows the user to:
   - Move the character forward,
   - Activate the **Wheel of Fortune**,
   - Speed up the wheel's rotation.

To integrate the service, you need to configure the API and iframe.

Serialization Requirements:

1. Encoding: UTF-8
2. property names are compared case-insensitively
3. naming policy is camel case. Example: textForExample
4. Enumerations are serialized as strings
5. fields with missing values (null or 0) are not ignored and serialized with default values
6. number handling:

- Reading from strings is allowed. Example: "field": 42 and "field": "42" will be deserialized as the number 42
- Currency names must be represented using their alphabetic code, according to the ISO 4217 standard. Example: USD, CLP, RUB
- Currencies that have minor units must be transmitted in minor units. Example: 100.12 USD = 10012, 100.00 RUB = 10000
- Currencies that do not have minor units are transmitted in standard values. Example: 100 CLP = 100, 100 JPY = 100
- The number of minor units is determined by the ISO 4217 standard

Response codes:

A successful response contains the "Ok" code

Errors:

- Undefined
- InternalError

- InvalidRequest
- InvalidHash
- UserNotFound
- InsufficientFunds
- MaxBetAmountExceeded
- BetNotFound
- SessionTokenNotFound
- InvalidCurrency

If an error occurs, return a JSON object ErrorResponse

ErrorResponse

№	Name	Data Type	Nullability
1	ErrorCode	string	not null
2	ErrorMessage	string	null

Generation hash:

The hash is generated using the hmac-sha256 algorithm. The message is a concatenation of the method name and fields without spaces. The key used is the operatorKey.

Authenticate: "authenticate{token}", getbalance: "getbalance{userId}{currency}", changebalance: "changebalance{betId}{userId}{currency}{amount}{transactionType}"

Service Methods:

Authorization and Authentication:

- For authorized users, a token must be generated and inserted into the URL. Example URL: https://provider.com/live?session_token={token}&operator={operator}&hash={hash}
- Unauthorized users receive a 403 Forbidden error.

Use case:

Precondition: The user may or may not be authenticated.

Trigger: The user navigates to a page with an iframe.

Steps:

The merchant checks the user's authentication status.

a. If the user is authenticated:
   i. The merchant generates a session token
   ii. The merchant inserts the session token and operator name into the URL. Example URL: https://provider.com/live?session_token={token}&operator={operator}&hash={hash}
   iii. The merchant calculates hash from the session token and operator as: hash(message, secretKey), where message is concatenation of session_token and operator ("{session_token}{operator}"), secretKey is operatorKey, given to the merchant by provider
   iv. The provider sends a request to the merchant (AuthenticateRequest)
   v. The merchant sends user information to the provider (AuthenticateResponse)
   vi. The provider authenticates the user
   vii. The provider grants the user access to the game

b. If the user is not authenticated:
   i. The merchant displays the provider’s website withe a 403 Forbidden error

Authenticate

Method	POST /api/authenticate
Input data	AuthenticateRquest
Output data	AuthenticateResponse

If an error occurs, return a JSON object ErrorResponse

AuthenticateRequest

№	Name	Data Type	Nullability	Description
1	Token	string	not null	Session token generated by merchant
2	operator	string	not null	Operator name. Issued to the merchant by the provider
3	Hash	string	not null	-

AuthenticateResponse

№	Name	Data Type	Nullability	Description
1	UserId	string (64)	not null	Unique user ID in merchant's system
2	Username	string (100)	not null	User display name. Duplicates are allowed
3	Currency	string(3)	not null	User currency (ISO 4217 alphabetic code)

Player balance adjustment:

Use case:

Precondition: The user is authenticated.

Trigger: The user places a bet.

Steps:
1. The provider sends a user balance request: UserId, Hash (GetBalanceRequest)
2. The merchant sends the user's balance: Balance, Currency (GetBalanceResponse)

a. If the user has sufficient funds:
i. The provider sends a balance change request along with bet details: BetId, UserId, Currency, Amount, TransactionType, Hash (ChangeBalanceRequest)
ii. The merchant updates the user's balance and sends transaction details: Balance, Currency, TransactionId (ChangeBalanceResponse)
iii. The provider processes the bet

b. If the user has insufficient funds:
i. The provider rejects the bet

Get Balance

Method	POST /api/getbalance
Input data	GetBalanceRequest
Output data	GetBalanceResponse

GetBalanceRequest

№	Name	Data Type	Nullability	Description
1	UserId	string(64)	not null	Unique user ID in merchant's system
2	Currency	string(3)	not null	User currency (ISO 4217 alphabetic code)
3	Hash	string	not null	-

GetBalanceResponse

№	Name	Data Type	Nullability	Description
1	Balance	int (long)	not null	User balance
2	Currency	string (3)	not null	User currency (ISO 4217 alphabetic code). User's currency must not differ in subsequent requests

Change Balance

Method	POST /api/changebalance
Input data	ChangeBalanceRequest
Output data	ChangeBalanceResponse

ChangeBalanceRequest

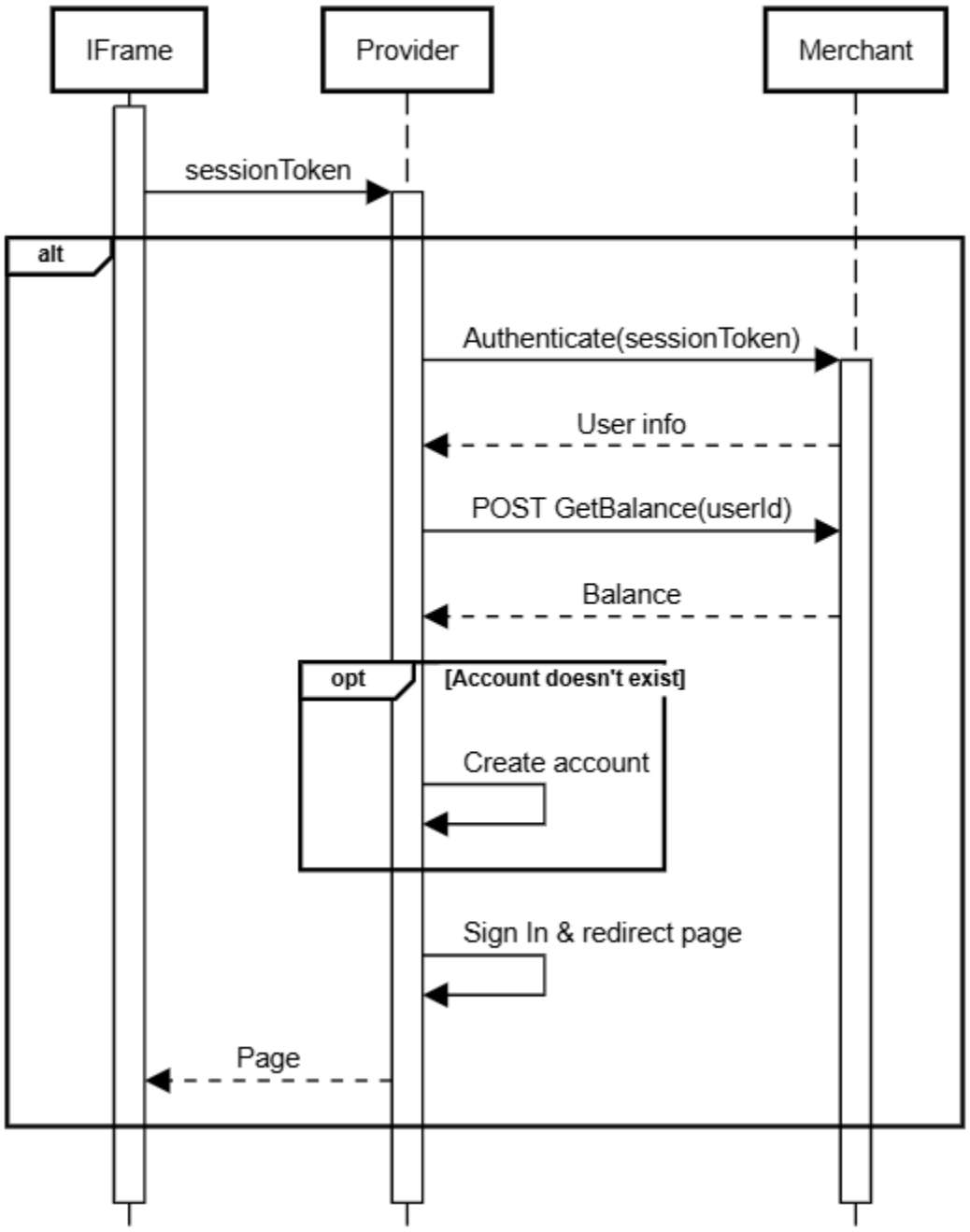
№	Name	Data Type	Nullability	Description
1	BetId	int (64)	not null	Bet ID in provider's system
2	UserId	string (64)	not null	Unique user ID in merchant's system
3	Currency	string (3)	not null	User currency (ISO 4217 alphabetic code)
4	Amount	number	not null	Transaction amount. The value is always greater than 0
5	TransactionType	enum(string)	not null	Transaction type: • BetPlacement - debit of funds to place a bet • BetRefund - depositing funds due to bet refund • BetWin - depositing funds due to bet win
6	Hash	string	not null	-

ChangeBalanceResponse

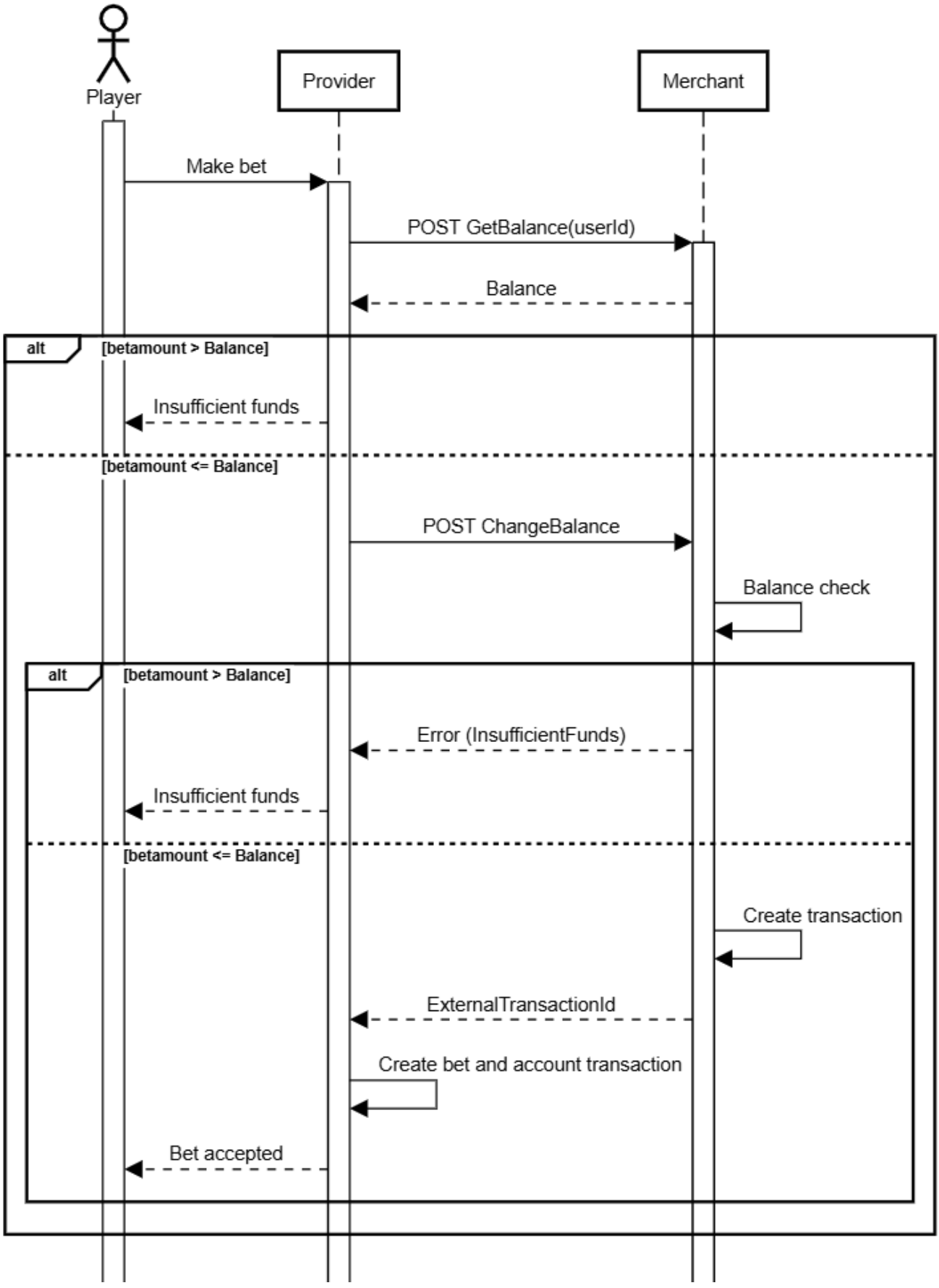
№	Name	Data Type	Nullability	Description
1	Balance	int (long)	not null	User balance
2	Currency	string (3)	not null	User currency (ISO 4217 alphabetic code). User's currency must not differ in subsequent requests
3	TransactionId	string (64)	not null	Unique transaction ID in merchant's system

Sequence diagrams

Authentication



Change balance



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