**Know Your Customer(KYC)**

**KYC (Know Your Customer) Verification Process**

**There are 3 Different stages**:

**Stage 1: Mobile Number Verification**

**Stage 2: Document Verification**

**Stage 3: Facial Verification**

**Stage 4: Bank Account Verification**

**Stage 1: Mobile Number Verification**

* **Collect User Information:** Gather the user's name and mobile number during registration.
* **Send OTP:** Generate a unique one-time password (OTP) and send it to the provided mobile number via SMS or a similar channel.
* **Verify OTP:** Prompt the user to enter the received OTP to confirm ownership of the mobile number.
* **Telecom Database Check:** If available and feasible, cross-verify the provided name and mobile number with the telecom provider's database to enhance security.

**Stage 2: Document Verification**

* **Document Submission:** Request the user to upload a clear copy of a valid government-issued ID (e.g., passport, driver's license, national ID card).
* **Data Extraction:** Use OCR or other image processing techniques to extract relevant information from the uploaded document, such as name, date of birth, and document number.
* **Document Authentication:** Verify the authenticity of the document using a reputable third-party identity verification service.
* **Data Matching:** Compare the extracted information with the data provided during registration and the information verified in Stage 1 (mobile number verification).

**Stage 3: Facial Recognition**

* **Liveness Check:** Conduct a liveness check to ensure the user is a real person and not a spoofing attempt. This can involve asking the user to perform specific actions (e.g., blink, smile, head movement) while capturing a video or image.
* **Facial Feature Extraction:** Extract facial features from the captured image or video.
* **Biometric Comparison:** Compare the extracted facial features with the photo on the uploaded ID and any previously stored biometric data (if applicable).

**Stage 4: Bank Account Verification**

* **Bank Selection:** Allow the user to select their bank from a list of supported banks.
* **Account Details:** Request the user to enter their bank account number and other relevant details.
* **Bank Verification:** Verify the provided bank account details using the bank's API or a third-party verification service.
* **Name Matching:** Ensure that the name associated with the bank account matches the previously verified information (from mobile number, document, and facial recognition).
* **Additional Checks (Optional):** Consider implementing additional checks like address verification or credit history checks based on risk assessment.

**Key Considerations:**

* **Data Privacy:** Handle all collected user data securely and in compliance with applicable data protection regulations (e.g., GDPR, CCPA).
* **User Experience:** Design the verification process to be user-friendly and minimize friction for the user.
* **Error Handling:** Implement robust error handling mechanisms to provide clear and informative feedback to the user in case of failures during any stage of the verification process.
* **Compliance:** Adhere to all relevant KYC/AML regulations and industry standards.
* **Continuous Improvement:** Regularly review and update the verification process to address emerging threats and improve accuracy.

By following these steps and incorporating best practices, you can establish a robust

and secure the KYC verification process for your cryptocurrency exchange.