Visa Simulator:
Technical Implementation Document

1. Introduction

This document outlines the technical specifications and implementation steps for the Visa Simulator web application. The primary goal is to provide a clear, step-by-step guide for developers to implement the entire process, from front-end data collection to back-end processing, AI integration, and user communication. The design prioritizes security, scalability, and a robust user experience, all without relying on a traditional relational database.

Key Requirements:

- **No Database:** All user data and documents must be stored on the file system, not in a traditional database. This approach simplifies the architecture, reduces operational overhead, and aligns with a focus on single-use, temporary data storage for each analysis request.
- **Security First:** Implementing all necessary security measures is paramount. This includes protecting user data at rest within the file system, during transit (via HTTPS), and throughout the payment and AI integration processes.
- **Stripe Integration:** The payment system must use Stripe for a one-time charge of $12.99 USD. The architecture must be designed to handle and process this transaction without ever storing sensitive credit card information on our servers, ensuring PCI compliance.
- **GPT Assistant Integration:** The core analysis will be performed by a GPT Assistant. To ensure consistency and reliability, a specific input format will be used to pass user information and documents, and a structured output format will be required from the AI to facilitate automated parsing.
- **Detailed User Feedback:** The user will receive a multi-part analysis and a comprehensive PDF report via email. This process ensures the user has a permanent, detailed record of their simulation results.

2. Step-by-Step Implementation Guide

Step 1: Front-end Data Collection

The front-end is responsible for gathering all user information, including a series of form fields, document uploads, and a video submission. The user interface should be intuitive and provide clear feedback during the collection process.

- **Form Data:** The application will collect a variety of text-based information, such as the applicant's personal details, travel history, and specific visa type requested. Each form field should have appropriate validation rules to ensure data integrity before submission.
- **File Uploads:** Implement the file upload components to handle various document types (e.g., PDF, JPEG, PNG, DOCX) and a video file. The UI should support modern interactions like drag-and-drop to enhance usability.
    - **Validation:** Use JavaScript to validate file types and sizes on the client-side to provide immediate feedback to the user. This prevents unnecessary server-side requests for invalid files. The maximum file size for a single document should be capped at a reasonable limit (e.g., 25 MB).
    - **Chunking (Optional but Recommended for Large Files):** For large video files or multiple documents, chunked uploads are highly recommended. A library like `resumable.js` can break a large file into smaller, manageable chunks. If an upload fails, only the failed chunk needs to be re-uploaded, providing a more robust and reliable experience, especially on unstable network connections.
    - **User Experience:** The UI should include a progress bar or status indicator for each file to provide visual confirmation of a successful upload.
- **HTML & JavaScript Example for File Upload:**

```
<div class="upload-component flex flex-col items-center p-6 border-2 border-dashed rounded-lg cursor-pointer hover:border-blue-500 transition-colors" data-field="ds160-form">
  <input type="file" id="ds160-form-file" class="hidden" name="ds160-form-file" accept=".pdf,.jpg,.jpeg,.png">
  <label for="ds160-form-file" class="text-center">
    <svg class="mx-auto h-12 w-12 text-gray-400" stroke="currentColor" fill="none" viewBox="0 0 48 48" aria-hidden="true">
      <path d="M28 8H12a2 2 0 00-2 2v20m32-12v8m0 0v8a2 2 0 01-2 2H12a2 2 0 01-2-2v-8m20-12v8m0 0v8a2 2 0 01-2 2H12a2 2 0 01-2-2v-8m20-12v8" stroke-width="2" stroke-linecap="round" stroke-linejoin="round" />
    </svg>
    <span class="mt-2 block text-sm font-medium text-gray-900">Drag and drop or click to upload your DS-160 Form</span>
    <p class="text-xs text-gray-500">PDF, JPG, PNG up to 25MB</p>
  </label>
  <div id="upload-progress-ds160" class="w-full mt-4 bg-gray-200 rounded-full h-2.5 hidden">
    <div class="bg-blue-600 h-2.5 rounded-full" style="width: 0%"></div>
  </div>
</div>

<script>
```

```
document.querySelectorAll('.upload-component').forEach(container => {
    const fileInput = container.querySelector('input[type="file"]');
    const progressBar = container.querySelector('#upload-progress-ds160 div');
    const progressBarContainer = container.querySelector('#upload-progress-ds160');

    fileInput.addEventListener('change', (event) => {
        const file = event.target.files[0];
        if (file) {
            // Validate file size and type
            if (file.size > 25 * 1024 * 1024) { // 25 MB
                // Use a modal or a clear message box instead of alert
                console.error('File is too large. Max size is 25MB.');
                event.target.value = '';
                return;
            }
            // Simulate upload progress for demonstration
            progressBarContainer.classList.remove('hidden');
            let progress = 0;
            const interval = setInterval(() => {
                progress += 10;
                progressBar.style.width = progress + '%';
                if (progress >= 100) {
                    clearInterval(interval);
                    progressBarContainer.classList.add('hidden');
                    // Update UI to show successful upload
                }
            }, 100);
        }
    });
});
</script>
```

Step 2: Stripe Payment Integration

This step involves collecting payment from the user before proceeding with the analysis. The process must be seamless and, most importantly, secure.

- **Front-end:**
    - Use the official Stripe.js library to securely collect credit card details. This library handles the complex process of tokenizing card information, ensuring that raw card data never touches your servers.

    - Create a payment form using Stripe Elements, which are secure UI components that handle the input of sensitive payment details. This approach ensures PCI compliance out of the box.
    - On form submission, use `stripe.createPaymentMethod()` to generate a secure `paymentMethodId`. This ID is a reference to the payment information and is the only data sent to the back-end.
    - **Crucially, this token/ID is a one-time use reference. No sensitive credit card information is ever sent to or stored on your server.** The front-end should provide clear visual feedback, such as a loading spinner, while the payment is being processed.
- **Back-end (PHP):**
    - Install the Stripe PHP library via Composer (`composer require stripe/stripe-php`).
    - The back-end script will receive the secure `paymentMethodId` from the front-end.
    - Use the Stripe API to create a `PaymentIntent` for `$12.99 USD` (represented as `1299` cents). This object represents the intention to collect payment from a customer.
    - After a successful charge, the `payment_id` from the `PaymentIntent` will be used as the unique identifier for the user's session. This ID is essential for correlating the payment with the subsequent analysis request.
- **PHP Code Example for Stripe Charge:**

```
<?php
// backend/process_payment.php

// Ensure the Stripe library is loaded.
require 'vendor/autoload.php';
\Stripe\Stripe::setApiKey('sk_test_YOUR_SECRET_KEY');

header('Content-Type: application/json');

try {
    // Sanitize and validate the paymentMethodId from the POST request.
    if (!isset($_POST['paymentMethodId'])) {
        throw new Exception("Payment method not provided.");
    }
    $paymentMethodId = $_POST['paymentMethodId'];

    // Create a PaymentIntent. The amount is in cents.
    $paymentIntent = \Stripe\PaymentIntent::create([
        'amount' => 1299, // 12.99 USD
        'currency' => 'usd',
```

```
        'payment_method' => $paymentMethodId,
        'confirmation_method' => 'manual',
        'confirm' => true,
    ]);

    // Check the PaymentIntent status.
    if ($paymentIntent->status === 'succeeded') {
        echo json_encode(['success' => true, 'payment_id' => $paymentIntent->id]);
    } else {
        http_response_code(500);
        echo json_encode(['success' => false, 'error' => 'Payment failed or requires additional action.']);
    }
} catch (\Stripe\Exception\ApiErrorException $e) {
    // Handle specific Stripe API errors gracefully.
    http_response_code(500);
    echo json_encode(['success' => false, 'error' => $e->getMessage()]);
} catch (Exception $e) {
    // Handle other exceptions.
    http_response_code(500);
    echo json_encode(['success' => false, 'error' => $e->getMessage()]);
}
?>
```

Step 3: Back-end Data Storage

Once the payment is successful, all user data and files are submitted to a PHP script and securely stored in a specific folder structure. This step is critical for data persistence and subsequent analysis.

- **PHP Script:**
    - Create a dedicated PHP script (e.g., `submit_analysis.php`) that handles the form submission and file uploads.
    - The script should receive the form data and uploaded files and use the `payment_id` from the previous step as the unique identifier for the user's session.
    - **Security:**
        - **Always sanitize and validate user input.** Use `filter_input()` or similar functions to clean form data.
        - **File Uploads:** Use `move_uploaded_file()` to safely move uploaded files from the temporary directory to their final, secure location. Never use `copy()` or direct file manipulation.

        - **Do not trust client-side file extensions.** Use functions like `mime_content_type()` to verify the file's actual type. Also, sanitize all filenames and consider using a randomly generated filename to prevent path traversal attacks and ensure uniqueness.
        - The directory creation process must be secure. Ensure the directory doesn't already exist and that you handle file system permissions correctly.
- **Folder Structure:**
    - The directory path will be `/web/process/{payment_id}/`.
    - The `payment_id` acts as a unique, non-guessable key for each user's data.
    - Create this directory using `mkdir('/web/process/' . $paymentId, 0755, true);`. The `0755` permission setting allows the web server to read/write but prevents other users from accessing the content.
    - Store all uploaded files directly in this folder, using sanitized or randomly generated filenames.
    - Create a single text file, `Info.txt`, containing all form data in a structured JSON format. This makes it easy to read and parse the data later.
- **PHP Code Example for Storage:**

```
<?php
// backend/submit_analysis.php

// Ensure this script is only accessible via POST and has a valid payment ID.
if ($_SERVER['REQUEST_METHOD'] !== 'POST' || !isset($_POST['payment_id'])) {
    http_response_code(400);
    exit('Invalid request.');
}

$paymentId = filter_input(INPUT_POST, 'payment_id', FILTER_SANITIZE_STRING);
if (empty($paymentId)) {
    http_response_code(400);
    exit('Payment ID is required.');
}

$basePath = '/web/process/' . $paymentId;

// Create the directory with secure permissions. The `true` parameter allows for recursive creation.
if (!is_dir($basePath)) {
    if (!mkdir($basePath, 0755, true)) {
        http_response_code(500);
        exit('Failed to create directory.');
    }
```

```
}

// Store uploaded files.
foreach ($_FILES as $name => $file) {
    // Only process if a file was successfully uploaded without errors.
    if ($file['error'] === UPLOAD_ERR_OK) {
        $fileMimeType = mime_content_type($file['tmp_name']);
        // Add more rigorous checks for allowed mime types.
        if (!in_array($fileMimeType, ['image/jpeg', 'image/png', 'application/pdf'])) {
            // Log this error and return to the user.
            continue;
        }

        // Sanitize the filename to prevent path traversal and other attacks.
        $sanitizedFileName = preg_replace('/[^a-zA-Z0-9\._-]/', '', basename($file['name']));
        $uploadFile = $basePath . '/' . $sanitizedFileName;

        if (move_uploaded_file($file['tmp_name'], $uploadFile)) {
            // Log successful file move.
        } else {
            // Log file move error.
        }
    }
}

// Store form data in a structured Info.txt file.
$formData = $_POST;
// The email address is crucial for the final step.
$userEmail = filter_input(INPUT_POST, 'user_email', FILTER_VALIDATE_EMAIL);

// Remove the payment ID from the data stored in the file to avoid redundancy.
unset($formData['payment_id']);

if (!file_put_contents($basePath . '/Info.txt', json_encode($formData, JSON_PRETTY_PRINT)))
{
    http_response_code(500);
    exit('Failed to save form data.');
}

// Proceed to GPT integration.
// ...
?>
```

Step 4: GPT Assistant Integration

After data is securely stored, the PHP script will initiate an API call to the GPT Assistant to perform the visa application analysis. This step is the core of the simulator's logic.

- **API Call:** Use a `cURL` request or a dedicated HTTP client library (e.g., Guzzle) to call the GPT Assistant API. This should be an asynchronous, non-blocking call if possible, to prevent the user's browser from timing out.
- **Prompt Engineering:** The quality of the analysis is directly tied to the prompt. It must be carefully crafted to provide the AI with all necessary context and constraints. The prompt should contain:
    - A clear set of system instructions defining the AI's role as a visa application analyst.
    - The user's sanitized form data from `Info.txt`, clearly formatted.
    - A list of paths to all uploaded documents and the video file. The AI should be instructed to "read" or "analyze" these files.
    - Clear, explicit instructions on the desired output format, specifying the three required JSON schemas and their precise structure. This is crucial for reliable, automated parsing of the response.
    - Mentioning the user's goal (e.g., "analyze this visa application for a tourist visa to [country] and provide a professional, structured feedback in the specified format").
- **API Call Example (Conceptual):**

```
// PHP code snippet inside submit_analysis.php
// ...
// This is a simplified example. In production, error handling and retry logic are essential.

$userEmail = $formData['user_email']; // Assumes email is in the form data.

$prompt = "You are a professional visa application analyst. Your task is to review the following documents and form data for a visa application.
**Form Data:**
" . file_get_contents($basePath . '/Info.txt') . "
**Documents to Analyze:**
" . implode(', ', glob($basePath . '/*'));

// Add instructions for the AI to return a specific JSON format with three schemas.
$prompt .= "
Based on your analysis, provide a response in the following JSON format:
{
  \"schema_a\": {\"decision\": \"yes\"|\"no\", \"probability\": \"percentage\"},
  \"schema_b\": {\"evaluation_points\": [{\"point\": \"...\", \"explanation\": \"...\", \"weight\": \"high\"|\"medium\"|\"low\"}]},
```

```
  \"schema_c\": {\"detailed_analysis\": \"...\"}
}
";

// Use cURL to call the GPT API
$ch = curl_init('https://api.openai.com/v1/chat/completions');
curl_setopt($ch, CURLOPT_RETURNTRANSFER, true);
curl_setopt($ch, CURLOPT_HTTPHEADER, [
    'Content-Type: application/json',
    'Authorization: Bearer YOUR_OPENAI_API_KEY'
]);
curl_setopt($ch, CURLOPT_POST, true);
curl_setopt($ch, CURLOPT_POSTFIELDS, json_encode([
    'model' => 'gpt-4',
    'messages' => [['role' => 'user', 'content' => $prompt]]
]));

$response = curl_exec($ch);
$analysisResults = json_decode($response, true);
// ...
curl_close($ch);
```

Step 5: Process GPT Assistant Output

The GPT Assistant will return a JSON object with three distinct schemas. The back-end PHP script must carefully parse this response to extract the necessary information for the user and for subsequent steps.

- **Schema A: Yes/No and Probability**
    - This is a simple, direct schema that provides a decision (`yes` or `no`) and a confidence score (`probability`).
    - The back-end must parse this schema to get the overall result. This information is passed back to the front-end to display the immediate outcome. Developers should consider defining probability thresholds (e.g., >80% = high, 50-80% = medium, <50% = low) to provide more nuanced feedback.
- **Schema B: Evaluation Points**
    - This schema will contain a list of points and explanations, each with a specific weighting (e.g., "high," "medium," or "low" impact).
    - This data will be used to populate the "reasons" list on the front-end, offering the user a quick, scannable summary of the key factors influencing the decision. The weighting can be used to visually highlight the most critical points.
- **Schema C: Detailed Analysis**
    - This is the full, comprehensive narrative analysis of the application.

    - This content is the most important part of the report. It will be used as the primary source material for generating the final PDF document. The back-end must store this raw text securely to be used in the PDF generation process.

Step 6: Front-end Result Display

Once the back-end has processed the GPT response, it will send the structured data back to the front-end. The goal is to present this information to the user in a clear, digestible format.

- **Yes/No Result:** Show a clear, visually prominent "Approved" or "Denied" message, along with the probability score from Schema A. Use color-coding (e.g., green for yes, red for no) to make the result instantly understandable.
- **Reason List:** Dynamically generate a list of reasons and explanations using the data from Schema B. This list should be easy to read, perhaps in an accordion or collapsible UI component, so the user can explore the details at their own pace.
- **Final Step:** The final front-end step should be a confirmation message reassuring the user. It should state that the detailed analysis (from Schema C) has been processed and a PDF report, along with the results, will be sent to their email address shortly. This manages user expectations and concludes the on-screen experience.

Step 7 & 8: PDF Creation and Email

- **PDF Generation:** Use a robust PHP library like `FPDF` or `TCPDF` to create a professional-looking PDF document from the detailed analysis (Schema C).
    - **Design & Layout:** The PDF should be branded with the company's logo and have a clear, easy-to-read layout. Include headers, footers, and page numbers. The content should be neatly formatted, with headings for different sections of the analysis.
    - **Saving the File:** Save the generated PDF to the user's specific directory: `/web/process/{payment_id}/analysis.pdf`.
- **Email Sending:**
    - Use a secure, reliable email library or a transactional email service (e.g., PHPMailer, SendGrid, Mailgun) to send the email. Using a dedicated service ensures a high deliverability rate and provides analytics on email status.
    - The email content should include:
        - A clear, friendly subject line (e.g., "Your Visa Simulator Results Are Ready").
        - A confirmation of the visa simulator result.
        - A summary of the result from Schema A (e.g., "Based on our analysis, your application has an 85% probability of being successful.").
        - The generated PDF report as a secure attachment.
        - **Crucially, do not send the raw GPT output in the email body.** The PDF is the finalized, professional report.

3. Security Considerations Summary

Security is not an afterthought; it must be an integral part of the design and implementation at every step.

- **Input Validation:** All user input must be validated and sanitized on both the front-end and, more importantly, the back-end. This is the first line of defense against common attacks like Cross-Site Scripting (XSS) and path traversal.
- **HTTPS/SSL:** The entire application, from front-end to back-end APIs, must be served over HTTPS to encrypt all data in transit and protect user information from eavesdropping.
- **File Uploads:**
    - **MIME Type Validation:** Verify file types on the server-side using `mime_content_type()` instead of just relying on the filename extension, which can be easily faked.
    - **Secure Directory:** Use a secure, non-public directory for storing all uploaded files. This directory should not be directly accessible via a URL.
    - **Filename Sanitization:** Sanitize all filenames, and consider using unique, randomly generated filenames to prevent malicious file names and overwriting existing files.
- **Stripe Integration:** Adhere strictly to Stripe's documentation and best practices. Use Stripe Elements for all payment forms to ensure PCI compliance. Never attempt to store, log, or handle raw credit card information on your servers.
- **Directory Permissions:** Set strict file system permissions. The `/web/process/` directory should have permissions that allow the web server to create and write files (e.g., `0755`) but nothing more. This follows the principle of least privilege.
- **API Keys:** Never hardcode API keys in any part of the code, especially not in front-end JavaScript. Use environment variables on the back-end to manage sensitive keys for Stripe and the GPT Assistant.
- **Error Handling & Logging:** Implement robust `try-catch` blocks for all critical operations (e.g., Stripe charges, GPT API calls, file system operations). Log detailed error messages securely to a private log file, but provide only generic, user-friendly error messages to the front-end to avoid exposing internal system details.

U.S. Visa Evaluation Framework

This document outlines a hypothetical evaluation framework used by a consular officer to assess a visa applicant's eligibility under Section 214(b) of the Immigration and Nationality Act. The primary objective is to overcome the presumption of immigrant intent by demonstrating strong ties to the home country. The following 200 attributes are categorized and assigned a weight, with a total weight of 1000.

Example Contextual Statistics: Country X (FY 2024, B-Visas)

- **Refusal Rate:** 24.70%
- This rate is a significant factor in the overall risk assessment for applicants from Country X. It reflects a number of country-specific factors, including economic conditions, political stability, and the historical rate of visa overstays. The consular section is always mindful of these macro-level trends.

1. Behavioral Attributes (Total Weight: 350)

These attributes are assessed primarily through the interview, document review, and background checks. They gauge the applicant's credibility, honesty, and intent.

Attribute	Weight	Subcategory	Description
1.1. Clear answers during interview	25	Interview Conduct	Applicant provides direct, concise, and truthful answers without hesitation.
1.2. Consistency of DS-160 information	20	Application Honesty	Information provided on the DS-160 form matches interview answers and documents.
1.3. Articulate purpose of travel	20	Intent & Knowledge	Applicant can clearly and confidently explain the specific reason for the trip.
1.4. Preparedness with supporting documents	15	Diligence	Applicant has all necessary, well-organized documents readily available.

1.5. No prior U.S. visa violations	15	Travel History	No record of overstaying, working illegally, or other violations on previous U.S. visas.
1.6. Social media and online presence	15	Background Check	Public information is consistent with the application and does not suggest immigrant intent.
1.7. Clear plans for the trip (itinerary)	15	Intent & Knowledge	Specific details of flights, accommodations, and activities are provided.
1.8. Spontaneous and natural conversation	15	Interview Conduct	Applicant engages in a natural conversation, not a memorized script.
1.9. History of international travel	15	Travel History	Evidence of previous successful trips abroad (especially to developed countries).
1.10. No history of criminal convictions	15	Background Check	Clean criminal record in the home country and any other country of residence.
1.11. Professional demeanor during interview	10	Interview Conduct	Applicant is polite, respectful, and calm under pressure.
1.12. Applicant speaks on their own behalf	10	Interview Conduct	Applicant, not a parent or family member, is the primary speaker during the interview.

1.13. No prior visa refusals to U.S.	10	Travel History	A clean record of previous applications and no prior 214(b) refusals.
1.14. No prior visa refusals to other countries	10	Travel History	History of successful visa applications to other countries, such as Schengen Area.
1.15. No discrepancies in application forms	10	Application Honesty	All forms (DS-160, I-20, etc.) are free of conflicting information.
1.16. Reasonable trip duration	10	Intent & Knowledge	The requested length of stay is logical for the stated purpose of travel.
1.17. Familiarity with sponsor (if applicable)	10	Interview Conduct	Applicant can clearly explain their relationship with the U.S. sponsor and their background.
1.18. Ability to pay for the trip	10	Financial Stability	Applicant or sponsor can demonstrate sufficient funds to cover all travel costs.
1.19. No history of human trafficking or fraud	10	Background Check	No red flags related to serious legal or ethical violations.
1.20. No history of document fraud	10	Application Honesty	Documents provided are genuine and have not been altered or falsified.
1.21. No history of working illegally abroad	10	Travel History	Past travel history doesn't indicate unauthorized work in other countries.

1.22. Clear plan for return to home country	10	Intent & Knowledge	Applicant can articulate what they will return to (job, family, business, etc.).
1.23. No indication of political asylum seeking	5	Background Check	Applicant's history and statements do not suggest a desire to seek political asylum.
1.24. No history of deportation	5	Travel History	No prior record of being deported from the U.S. or any other country.
1.25. Honest about relatives in the U.S.	5	Application Honesty	Applicant is forthright about any family or friends residing in the U.S.
1.26. Calmness and composure	5	Interview Conduct	Lack of excessive nervousness or anxiety during the interview.
1.27. Consistency with visa type requirements	5	Intent & Knowledge	The stated purpose of travel aligns perfectly with the visa category (e.g., F-1 for study).
1.28. No signs of being coached	5	Interview Conduct	The applicant's answers do not sound like a pre-rehearsed script.
1.29. No hostile or evasive behavior	5	Interview Conduct	Applicant is cooperative and not confrontational.
1.30. Timely submission of application	5	Diligence	The application was submitted with sufficient time before the planned travel.

2. Demographic Attributes (Total Weight: 250)

These attributes are based on the applicant's personal information and life circumstances. They are indicators of stability and are often key to proving strong ties.

Attribute	Weight	Subcategory	Description
2.1. Stable employment history	20	Employment	Long-term, consistent employment with a reputable company in the home country.
2.2. High annual income	20	Financial Stability	Income level is significantly above the national average, indicating strong financial ties.
2.3. Family in the home country	20	Social Ties	Having a spouse, children, or elderly parents who will remain in the home country.
2.4. Owns real estate (property/home)	20	Financial Stability	Ownership of significant assets, such as a home, that would compel a return.
2.5. Age and life stage	15	Social Ties	Older applicants or those with established lives are generally seen as more stable.
2.6. Education level (e.g., bachelor's degree)	15	Employment	Higher education can indicate stronger career prospects in the home country.

2.7. Has a business in home country	15	Employment	Ownership of a successful business that requires the applicant's presence to operate.
2.8. No close family members illegally in U.S.	15	Social Ties	No record of immediate family members overstaying or violating visa terms.
2.9. Bank account with significant savings	15	Financial Stability	Substantial savings that go beyond the trip's expenses.
2.10. Has a valid driver's license	10	Identity	A standard form of identification indicating a stable civic status.
2.11. Engaged in a professional organization	10	Social Ties	Membership in professional groups or guilds.
2.12. Stable relationship status (married/partnered)	10	Social Ties	Indicates a stable and long-term commitment.
2.13. Has a car or other significant assets	10	Financial Stability	Ownership of assets that are difficult to abandon.
2.14. Engaged in a sports club or hobby group	10	Social Ties	Participation in community activities.
2.15. Holds a leadership position in an organization	10	Employment	A role with significant responsibility, demonstrating career progression.

2.16. Owns land or other non-liquid assets	10	Financial Stability	Assets that are difficult to sell or move quickly.
2.17. Has an active retirement or pension fund	5	Financial Stability	Long-term financial planning that is tied to the home country.
2.18. Active with a local charity or volunteer group	5	Social Ties	Demonstrates a commitment to the local community.
2.19. Active social security or national ID	5	Identity	Proof of legal and recognized residency in the home country.
2.20. Has a valid professional license	5	Employment	Credentials that are specific to the home country's regulations.

3. Geographic Attributes (Total Weight: 250)

These attributes relate to the applicant's country, region, and local community. They provide a broader context for the individual's application.

Attribute	Weight	Subcategory	Description
3.1. Visa refusal rate of home country	30	Country-Level Risk	A low national refusal rate is a positive indicator. The opposite is a red flag.
3.2. Political stability of home country	25	Country-Level Risk	A stable political environment reduces the likelihood of seeking asylum.

3.3. Economic stability of home country	25	Country-Level Risk	A strong economy reduces the incentive for illegal work or overstay.
3.4. Overstay rate for home country	25	Country-Level Risk	Low overstay rates for citizens of the applicant's country are a strong positive.
3.5. Proximity of home country to U.S.	20	Regional Ties	Closer countries may be perceived as higher risk due to ease of travel.
3.6. Ties to local community (e.g., elected official)	15	Local Ties	Holding a position of trust or authority in a local community.
3.7. No history of travel to high-risk areas	15	Global Mobility	Past travel history doesn't include countries with known security concerns.
3.8. Does not reside in a border town/area	10	Local Ties	Residence near a border may be perceived as higher risk.
3.9. Engaged in a local business association	10	Local Ties	Active participation in a local economic group.
3.10. Has not recently moved residences	10	Stability	A stable residential history indicates rootedness.
3.11. Resides in a major metropolitan area	10	Local Ties	Residence in a well-established city with opportunities.

3.12. Is not from a region with high poverty rates	10	Country-Level Risk	Economic hardship in a specific region can increase the risk of immigrant intent.
3.13. Is not from a region with high crime rates	10	Local Ties	Residence in a safe and stable area.
3.14. No travel to the U.S. is related to illegal work	10	Global Mobility	Past travel to U.S. does not show signs of illegal work.
3.15. Ties to a religious community or institution	5	Social Ties	Membership and participation in a local religious group.
3.16. Enrolled in a local educational institution	5	Local Ties	Current enrollment in a university or school.
3.17. Has an active utility bill history	5	Stability	Proof of long-term residency at the stated address.
3.18. Has a current passport from home country	5	Identity	Proof of citizenship and legal status.
3.19. Does not have dual citizenship with a high-risk country	5	Global Mobility	Dual nationality can introduce a new layer of risk assessment.
3.20. Not on any U.S. or international watchlists	5	Background Check	A clean record in all security databases.

4. Psychographic Attributes (Total Weight: 150)

These attributes are the most subjective and are often inferred from the interview and supporting documents. They relate to the applicant's mindset, motivations, and personal goals.

Attribute	Weight	Subcategory	Description
4.1. Motivation for travel is compelling & genuine	25	Intent & Motivation	The purpose of travel is a clear and believable personal or professional goal.
4.2. Clear future plans in home country	25	Future Ties	Applicant has concrete plans for their career, education, or family after the trip.
4.3. Is not applying for a visa "just in case"	20	Intent & Motivation	The application is a direct response to a specific, imminent event.
4.4. Personal ambition is tied to home country	15	Future Ties	The applicant's long-term professional and personal goals can be achieved in their home country.
4.5. High confidence and self-assurance	10	Mindset	The applicant projects confidence in their future in their home country.
4.6. No expression of discontent with home country	10	Mindset	The applicant does not express frustration with their current life or government.
4.7. Realistic understanding of the U.S. trip	10	Intent & Motivation	The applicant has a realistic view of their trip, not an idealized fantasy.

4.8. High level of English proficiency (if needed)	5	Communication	For certain visa types, language proficiency shows preparedness.
4.9. Sense of responsibility to family/community	5	Mindset	The applicant expresses a strong sense of duty to those in their home country.
4.10. Has a well-defined career path in home country	5	Future Ties	A clear and logical progression in their professional life.
4.11. Shows gratitude for life in home country	5	Mindset	The applicant seems happy and well-adjusted in their current life.
4.12. Is not influenced by family or friends in the U.S.	5	Intent & Motivation	The decision to travel is their own, not coerced by others.
4.13. Willingness to provide all requested information	5	Communication	Applicant is open and cooperative with all requests for information.
4.14. No unrealistic expectations of U.S. opportunities	5	Mindset	The applicant does not view the U.S. as a place for instant success or escape.
4.15. Demonstrates financial literacy	5	Financial Stability	Applicant can articulate their financial situation and how they manage funds.