**Regex Patterns for PII Detection**

**1. Full Name:**

* **Pattern:** \b[A-Z][a-z]+ [A-Z][a-z]+\b
* **Description**: Matches names with two capitalized words (e.g., "John Doe").

**2. Gender:**

* **Pattern:** \b(Male|Female|Non[- ]binary|Transgender|Other|male|female|non[- ]binary|transgender|M|F|NB|T|m|f|t|nb|Mr|Mrs|Ms|Miss|Mx)\.?\b
* **Description**: Matches various gender identifiers, including titles (e.g., "Mr." or "Ms.").

**3. Date of Birth:**

* **Pattern:** \b(?:\d{1,2}[-/.]\d{1,2}[-/.]\d{2,4}|\d{4}[-/.]\d{1,2}[-/.]\d{1,2}|(?:\d{1,2}(?:st|nd|rd|th)?[-\s])?(?:Jan(?:uary)?|Feb(?:ruary)?|Mar(?:ch)?|Apr(?:il)?|May|Jun(?:e)?|Jul(?:y)?|Aug(?:ust)?|Sep(?:tember)?|Oct(?:ober)?|Nov(?:ember)?|Dec(?:ember)?)[-\s]?\d{1,2}(?:,?[-\s]?\d{2,4})?)\b
* **Description**: Matches various date formats, including "DD-MM-YYYY" and "1st January 2023".

**4. Nationality:**

* **Pattern:** \b(Indian|Indian)\b
* **Description**: Matches the nationality "Indian".

**5. City:**

* **Pattern:** (?:lives in|resides in|is based in|is located in|from|is in|stays in|is a resident of|is a citizen of|calls(?: it)? home)\s+([A-Za-z\s-]+)
* **Description**: Matches city names based on context (e.g., "lives in Hyderabad").

**6. Email Address:**

* **Pattern:** \b[A-Za-z0-9.\_%+-]+@[A-Za-z0-9.-]+\.[A-Za-z]{2,}\b
* **Description**: Matches standard email addresses.

**7. Phone Number:**

* **Pattern:** \b(?:\+91[\-\s]?)?(?:\(?91\)?[\-\s]?)?[6789]\d{2}[\-\s]?\d{3}[\-\s]?\d{4}\b
* **Description:** Matches Indian phone numbers, with or without country code.

**8. Aadhar Number:**

* **Pattern:** \b[2-9][0-9]{3} [0-9]{4} [0-9]{4}\b
* **Description:** Matches the Indian Aadhar format (e.g., "1234 5678 9101").

**9. PAN Card Details:**

* **Pattern:** \b[A-Z]{5}[0-9]{4}[A-Z]{1}\b
* **Description:** Matches the Indian PAN card format (e.g., "ABCDE1234F").

**10. Voter ID Number:**

* **Pattern:** \b([A-Z]{3}[0-9]{7})\b
* **Description:** Matches Indian voter ID formats (e.g., "ABC1234567").

**11. Passport Number:**

* **Pattern:** \b[A-Z][1-9][0-9] ?[0-9]{4}[0-9]\b
* **Description:** Matches passport numbers like "A1234567".

**12. Driving License Number:**

* **Pattern:** [A-Z]{2}[-\s]?\d{2}[-\s]?\d{4}[-\s]?\d{7}
* **Description:** Matches Indian driving license numbers.

**13. Bank Account Details:**

**Account Number:**

* **Pattern:** \b\d{11,18}\b
* **Description:** Matches typical bank account numbers (11-18 digits).

**IFSC Code:**

* **Pattern:** \b[A-Z]{4}[-\s]?0[-\s]?[A-Z0-9]{6}\b
* **Description:** Matches Indian IFSC codes.

**14. Credit Card and Debit Card Information:**

**Card Number:**

* **Pattern:** \b\d{4}[- ]\d{4}[- ]\d{4}[- ]\d{4}\b
* **Description:** Matches 16-digit card numbers with spaces or hyphens.

**Expiry Date:**

* **Pattern:** \b(?:0[1-9]|1[0-2])\/\d{2}\b
* **Description:** Matches expiry dates in MM/YY format.

**CVV:**

* **Pattern:** \b[Cc][Vv][Vv]\s(?:was|is|of)\s(\d{3})\b
* **Description:** Matches CVV codes (e.g., "CVV is 123")

**15. IP Address:**

* **Pattern:** \b(?:25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?)\.(?:25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?)\.(?:25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?)\.(?:25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?)\b
* **Description:** Matches IPv4 addresses.