**Google Account Signup Process - Analysis Document**

**1. Defining Requirements**

**1.1 Mandatory and Optional Fields**

* **Mandatory Fields:**
  + First Name
  + Day of Birth
  + Month of Birth
  + Year of Birth
  + Gender
  + Email Address (Username)
  + Password
  + Confirm Password
  + Phone Number (for verification)
  + Verification Code (sent via SMS)
* **Optional Fields:**
  + Recovery Email Address
  + Last Name

**1.2 Security Measures**

* **Password Policy:**
  + Minimum 8 characters
  + At least one uppercase letter
  + At least one lowercase letter
  + At least one number
  + At least one special character
* **Verification Steps:**
  + Phone number verification via OTP (One-Time Password)

**1.3 User Experience Requirements**

* The signup form should be user-friendly and mobile-responsive.
* Real-time error validation should be implemented for fields (e.g., invalid email format, weak password warnings).
* Users should be provided with clear and descriptive error messages.
* The process should allow autofill and password manager integration.

**2. Detailing Business Workflows**

**2.1 Step-by-Step Signup Process**

1. User navigates to the Google signup page.
2. User enters First Name and Last Name
3. System checks for :

-First Name Field is filled

-First Name is valid.

-Last Name is valid.

1. User chooses birthday.
2. System checks for :

-Day of Birth is valid

-Year of Birth is valid.

1. User chooses Gender
2. User enters an Email address(Username)
3. System checks for :

- Email availability

- Email is valid.

1. User enters password
2. User enters password for confirmation
3. System checks for :

-Password is valid.

-Passwords are matched for confirmation.

1. User enters a phone number
2. System checks for :

-Phone Number is valid.

-Phone number is not used for multiple times.

1. Google sends an OTP to the provided phone number.
2. User enters the OTP and submits the form.
3. System checks for :

-Verification Number is valid.

1. System validates OTP and creates the account.
2. User is redirected to the welcome page.

**2.2 Alternative Scenarios**

* User enters an email that is already in use → System prompts for an alternative email.
* User enters an incorrect OTP → System allows retry with a limit (e.g., 3 attempts before re-sending OTP).
* User enters a weak password → System provides password strength feedback.
* User skips mandatory fields → System prompts the user to fill in missing fields.
* Network interruption during signup → System allows the user to resume from the last completed step.

**2.3 Verification Mechanisms**

* **Phone Number Verification:**
  + OTP-based verification for user authentication.