Chapter-2

Analysis

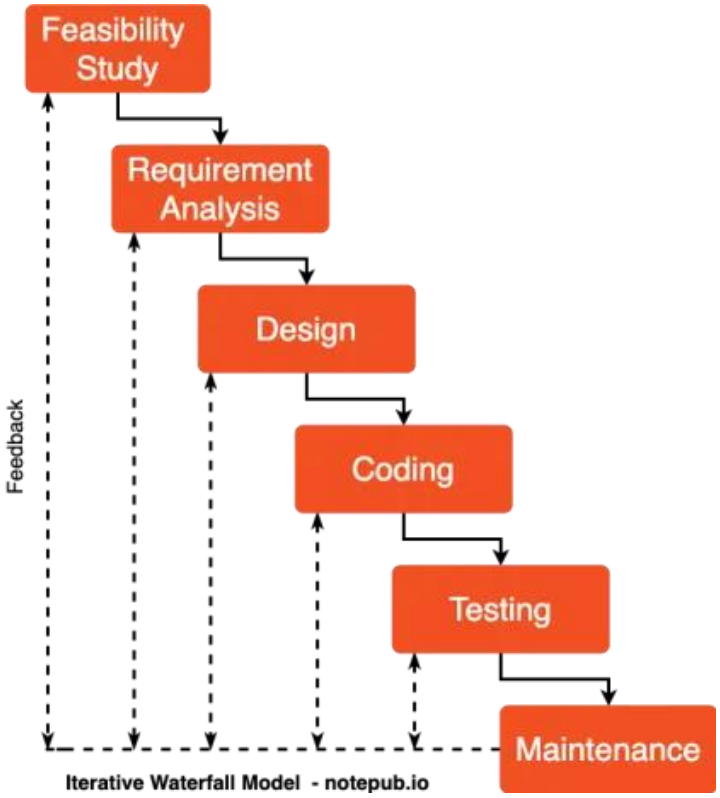
2.1. Requirement Analysis

- **Multi-Factor Authentication:**
  - Consider adding an optional MFA layer for enhanced security, especially for sensitive data access.
  - When users initially create their accounts, require them to set up MFA. This typically involves associating their account with an additional authentication method, such as a mobile app, email, or phone number.
  - After successfully entering their credentials, the system prompts them for the second authentication factor.

- **Session Management:**
  - Implement session timeouts and ensure secure handling of user sessions.
  - Before establishing a session, ensure that users are properly authenticated and authorized based on their roles and permissions.
  - Upon successful login, create a unique session identifier for the user, typically stored as a secure cookie or in a server-side session store.
  - Implement session timeouts to automatically log users out after a period of inactivity. The timeout duration should be configured based on security policies and user requirements.

- **Secure Communication:**
  - Use HTTPS to encrypt data transmitted between the client and server.
  - Implement TLS (Transport Layer Security) to encrypt data transmitted between the client and server. This ensures that data exchanged during login, form submissions, and other interactions is secure.
  - Set the "Secure" and "HttpOnly" flags on cookies to ensure they are transmitted only over secure connections and are inaccessible to client-side scripts.

2.2. Project Model



- Begin with a comprehensive gathering of requirements from stakeholders, including funeral directors, staff, and clients. Document the initial set of requirements.
- The Iterative Waterfall Model, often referred to as the "Water-Scrum-Fall" model, combines elements of both the traditional Waterfall model and Agile methodologies like Scrum.

2.3. Schedule Representation

- In funeral management, schedule representation is pivotal. It visually and systematically lays out all events, including viewings, services, and burials, ensuring that each proceeds with care and precision. This structured approach helps directors and staff coordinate effectively while providing families with clear timelines for participation. It also aids in resource allocation, preventing logistical conflicts. By maintaining an organized schedule, funeral management systems uphold the dignity of every service, providing support during a challenging time while maintaining professionalism and efficiency.

2.4. Feasibility Study

- A feasibility study for a funeral management system involves assessing whether the proposed system is practical, financially viable, and beneficial for the intended users and stakeholders. Here are key aspects to consider in such a study:

1. **Market Analysis:**
   - Investigate if there's a genuine need for a funeral management system in the target market. Analyse the demand among funeral homes, directors, and other potential users.

2. **Technical Feasibility:**
   - Define the technical requirements, including hardware, software, and network infrastructure. Ensure they are feasible and available.

3. **Financial Feasibility:**
   - Calculate the development, implementation, and ongoing maintenance costs. Include expenses such as software development, hardware, licensing, and support.
   - Estimate potential revenue sources, such as subscription fees, one-time purchases, or service fees. Consider pricing strategies and market penetration.

4. **Legal and Compliance:**
   - Investigate legal and regulatory obligations, such as data privacy laws and record-keeping requirements, and ensure the system complies.
   - Address any potential intellectual property issues, including copyright and trademark concerns.

5. **Security and Privacy:**
   - Assess the security measures required to protect sensitive information, such as personal and financial data, in compliance with industry standards.
   - Develop clear privacy policies and consent mechanisms for handling personal information.