Product Requirements Document (PRD) for Naljal Household Water Connections App
:one: Introduction & Business Case
Objective:
Develop a mobile application for Naljal built on DIGIT to facilitate the application and approval process for household water connections. The app aims to streamline interactions between citizens and the Village Water and Sanitation Committee (VWSC), enhancing transparency and efficiency in service delivery.
Business Impact:
- **Cost Savings:** Reduces the administrative burden on the VWSC by automating the application and approval processes.
- **Increased Accessibility:** Allows citizens to easily apply for connections from their mobile devices, increasing the likelihood of engagement with local governance.
- **Alignment with Business Goals:** Supports the government’s digital transformation strategy to improve public services and citizen engagement.
- **Market Opportunity:** Growing demand for efficient public services in rural villages, particularly in areas suffering from water shortages.
:two: Target Audience & Personas
Primary User Groups:
1. **Citizens** - Individuals applying for household water connections.
   - **Pain Points:** Complicated application procedures, lack of information, and uncertain approval timelines.
   - **Motivations:** Want a reliable water supply for daily needs.
2. **Village Water and Sanitation Committee (VWSC) Members** - Individuals responsible for processing applications and approving connections.
   - **Pain Points:** Overwhelmed by paperwork, lack of communication tools, and time-consuming approval processes.
   - **Motivations:** Ensure timely water delivery and community health.
User Personas:
1. **Citizen User Persona**: "Jane Doe" - A 35-year-old mother of two living in a rural community, tech-savvy, looking to secure better resources for her family.
2. **VWSC Member User Persona**: "John Smith" - A 50-year-old community leader and VWSC member who values transparency and efficiency in governance.
:three: Market Research & Competitive Analysis
Current Landscape:
While various municipalities have started to digitize water connection applications, many systems remain cumbersome and slow. Competitors like "WaterConnect" offer streamlined solutions but fail to incorporate local governance compliance and community engagement tools.
Unique Value Proposition:
Naljal is tailored specifically to local needs, integrating real-time updates and feedback mechanisms to enhance user engagement and transparency.
:four: Product Scope, User Stories & Flow Diagrams
Features Breakdown & MoSCoW Prioritization:
- **Must-Have**:
   - Apply for water connection (Citizens)
   - Approve/Update connection status (VWSC Members)
- **Should-Have**:
   - Notifications for application status
   - Document upload for identity verification
- **Could-Have**:
   - Feedback system for users
   - Chat function for VWSC assistance
- **Won't-Have**:
   - Multilanguage support - phase 2 enhancement
Detailed User Stories:
1. **Citizen**:
   - **As a citizen, I want to apply for a household water connection so that I can ensure access to reliable water supply.**
   - **As a citizen, I want to check the status of my application so that I am informed about the process.**
2. **VWSC Member**:
   - **As a VWSC member, I want to approve or reject connection applications so

that I can manage water distribution effectively.**
   - **As a VWSC member, I want to update connection statuses so that records are accurate and up-to-date.**
User Flow Diagram:
(Insert wireframes and user flow diagrams visualizing the application process for both citizens and VWSC members).
:five: Success Metrics & KPIs
- **Adoption Rate**: Target of 70% of residents applying within the first year.
- **Engagement Metrics**: Average session duration of 5 minutes and 50% of users returning to the app monthly.
- **Revenue Impact**: Assess potential monetization through partnerships with local businesses for advertisements.
- **User Satisfaction**: Aim for a Net Promoter Score (NPS) of +30 within the first six months.
:six: Technical Feasibility & Engineering Considerations
- **Architectural Requirements**: The application will leverage cloud services for scalability and storage.
- **API Development**: APIs for data interchange between the app and existing government databases.
- **Technology Stack**: Choose Flutter or React Native for cross-platform mobile development.
:seven: Sprint Planning & Agile Development Roadmap
Sprint Duration: 2 weeks
Sprint Structure:
- **Sprint 0**: Requirement gathering and prototype development.
- **Sprint 1-2**: MVP build focusing on core features (application and approval process).
- **Sprint 3-4**: User interface refinement and integration of notifications.
- **Sprint 5+**: Full testing, bug fixing, security audits, and deployment.
:eight: Security, Compliance & Risk Management
- **Data Privacy Compliance**: Ensure GDPR compliance by incorporating minimal data retention practices and user consent forms.
- **Risk Management**: Regular vulnerability assessments and audits before each major release.
:nine: Project Timeline, Milestones & Go-To-Market Strategy
- **Project Timeline**: 6 months from kickoff to deployment.
- **Milestones include**:
   - Completing the MVP by the end of Sprint 2
   - Conducting user testing by Sprint 4
   - Launching the app at the end of Sprint 5.
- **Go-To-Market Strategy**: Collaborate with local authorities to promote the app through community meetings and social media campaigns.
:keycap_ten: Appendices & References
- Detailed survey results from user interviews conducted during the research phase.
- References to existing digital governance frameworks in similar countries for benchmarking.
- A glossary of terms used in the PRD for clarity.
By approaching the development of the Naljal Household Water Connections App, we will drive significant value to both citizens and the VWSC, improve service delivery, and transform how community interactions are managed.