DataQuest Solutions

Data Collection with ODK

Lesson 1. Introduction to ODK

- What is ODK?
- Components of ODK (ODK Collect, ODK Central, ODK Aggregate, ODK Briefcase)
- Advantages of using ODK over paper-based data collection

Lesson 2. Form Design and Development

- Understanding XLSForm structure (survey, choices, settings sheets)
- Question types (text, integer, decimal, select_one, select_multiple, date, geopoint, etc.)
- Adding constraints and relevance (skip logic)
- Grouping and repeat questions
- Cascading selects (linked questions)
- Calculations and default values
- Metadata (device ID, start/end time, location)
- Validations and testing using ODK XLSForm Online Validator

Lesson 3. Form Conversion and Upload

- Converting XLSForm to XML (via ODK Central or online validator)
- Uploading forms to ODK Central server

Lesson 4. ODK Collect Setup and Use

- Installing and configuring ODK Collect on mobile devices
- Connecting Collect to server (ODK Central)
- Downloading forms, filling forms, saving, finalizing, and submitting
- Working offline and syncing data later

Lesson 5. GPS and Media Integration

- Capturing GPS coordinates
- Taking photos, recording audio/video, scanning barcodes

- Storing and managing media files in forms

Lesson 6. Enumerators Training and Deployment

- Training enumerators on device usage, consent, and data entry
- Ethical considerations: informed consent, confidentiality
- Troubleshooting common issues in the field
- Piloting the tool before actual deployment

Lesson 7. Data Management and Export

- Accessing data from ODK Central/Aggregate
- Exporting data in CSV, Excel, or JSON formats
- Using ODK Briefcase (optional) for pulling and decrypting data
- Managing and archiving data securely

Lesson 8. Monitoring and Quality Assurance

- Real-time monitoring of submissions
- Flagging incomplete or suspicious submissions
- Setting quality control checks within the form
- Backup and data syncing frequency

Lesson 9. Data Analysis and Visualization

- Cleaning exported data in Excel, R, SPSS, or Python
- Creating dashboards in Power BI or Tableau using ODK outputs

Lesson 10. Security, Ethics, and Permissions

- Device security (PIN/passwords)
- User roles and access levels in ODK Central
- Data privacy laws (GDPR, HIPAA, etc.)
- Informed consent process (digital or verbal)