Open Source Telemedicine

Data Model

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Data Model

The fundamental goal of what we are attempting to accomplish can be summarized quite simply. That is:

Workers collects data by executing a procedure during an encounter with a subject.
Data Model

Worker

Encounter

Subject

Procedure
Data Model

**Worker:** The entity that collects data.

**Subject:** The entity about whom data is collected.

**Procedure:** A set of one or more instructions.

**Encounter:** The set of data collected during the execution of a procedure.

*Procedures and Encounters are compound objects.*
Data Model

- Procedure
- Instruction
- Subject
- Encounter
- Worker
- Observation
Data Model

Instruction: A singular declaration describing a method for data collection.

Observation: The data collected during execution of a single instruction.

Additional attributes and objects which define relationships between simple objects can then be added.
Data Model

Procedure

Worker

Encounter

Subject

Instruction Set

Observation Set

Instruction

Observation

Education Resource

Concept
Data Model

Data models for electronic medical records systems can become incredibly complex when developing a complete set of objects and relationships.
OpenMRS Data Model

Image removed, please see openmrs.org.
Sana data model is kept much simpler since it is not intended to be a full electronic medical record system.

- Gateway to existing emr's by representing the essential components of data collection.
- Building block for custom EMR
- Extendable to additional implementations where data is collected about a subject in a similar fashion.
Implementing on Android

- Requires a `ContentProvider` for each data object which is persisted.
- Object attributes represented by columns in the table.
- Accessed through a `ContentResolver`
- `ContentResolver` is accessed through a `Context`-e.g. An Activity or Service.
- Provides standard db methods.
- Example:

```java
android.provider.MediaStore
```
Sana 1.x Data Model

- Notification
- Saved Procedure
- Event
- Procedure
- Saved Procedure
- Client
- Page
- Element
- Image
- Sound
- Binary
- Education Resource