The Web Map Service is a standard protocol for serving geo-referenced map images over the Internet that are generated by a map server using data from a GIS database. WMS specifies a number of different request types, two of which are:

1. **GetMap** - This request returns a map image for a specified area and scale.
2. **GetFeatureInfo** - This request provides information about features within a specified area.

The Tile Model

The Tile Model is a hierarchical representation of geospatial data, where the data is divided into a grid of tiles, each of which represents a specified area of the Earth. The tiles are further divided into sub-tiles, each of which represents a smaller area of the Earth.

- **Zero Level Tiles**: The first level of tiles in the model, which contain the most general information about the area.
- **Level 1 Tiles**: Sub-divides the Zero Level Tiles into smaller tiles.
- **Level 2 Tiles**: Sub-divides the Level 1 Tiles into even smaller tiles.

The Application Level

The application level, visible in Figure 3, is the mobile client.

1. **GUI Module**
2. **Layers Module**
3. **POI Module**
4. **Filter Module**
5. **Utility/Logic System**

The client application communicates with the server through the UIClient module, which handles the user interface and receives data from the server.

**POIs Module**

The POIs Module is responsible for the display and interaction with points of interest (POIs) on the map. It handles the loading and rendering of POI markers and provides functions for interacting with them.

**Tile Model**

The Tile Model is the central component of the POIs Module. It contains thepthierarchical representation of the geospatial data, as described above.

**Filter Module**

The Filter Module is responsible for applying filters to the displayed data. It provides a set of predefined filters and allows the user to customize them.

**Utility/Logic System**

The Utility/Logic System is the backbone of the application. It handles the communication between the client and the server, manages the user interface, and provides common functionalities.

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