

NFC Healthcare Architecture Document

1. Application Architecture Choice

In this NFC Healthcare system, the chosen architecture is Monolithic Architecture. This architectural style is particularly suited for applications that are simple, self-contained, and do not require distributed components...

2. Application Diagrams

2.1 Use Case Diagram

This use case diagram illustrates how the Healthcare Provider interacts with the system to:

- Read NFC UID
- Scan Prescriptions
- Save Patient Data
- Export Patient Data to PDF
- View Email Logs

NFC Healthcare Architecture Document

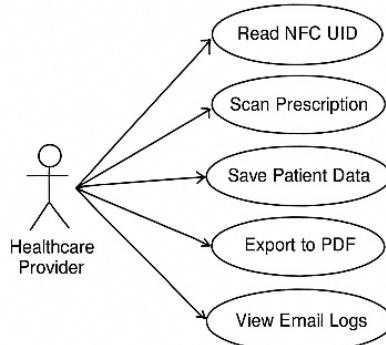
NFC Healthcare Architecture Document

1. Application Architecture Choice

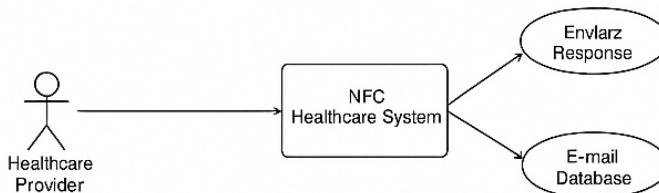
A monolithic architecture for the NFC Healthcare system is chosen; a Monolithic architecture is used for the application. The main components include the NFC application, Monolithic architecture, business logic, and patient data management. Advantages include scalability, development, and reduced latency. Disadvantages include disadvantages.

2. Application Diagrams

2.1 Use Case Diagram

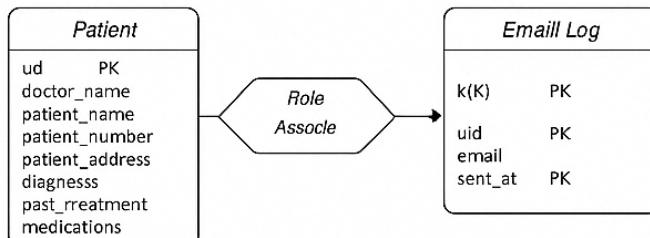


2.2 Data Flow Diagram (DFD)



3 Database

3.1 ER Diagram



3.2 Schema Design

```
CREATE TABLE patients(
    id TEXT PRIMARY KEY,
    doctor_name NULL,
    patient_name NULL,
    patient_number NULL,
    patient_address,
    diagnosis,
    post_rereatment,
    medications
) prescription
```

```
CREATE TABLE patients(
    id INTEGER PRIMARY KEY,
    uid TEXT,
    email TEXT,
    sent_at TEXT
)
```

2.2 Data Flow Diagram (DFD)

NFC Healthcare Architecture Document

In this Data Flow Diagram:

- The Healthcare Provider inputs data through the NFC Healthcare System.
- This system interfaces with two main outputs:
 - Email Database for storing dispatch logs
 - Envlarz Response (external service or processing module)

3. Database

3.1 Entity Relationship (ER) Diagram

The ER diagram defines the relationship between Patients and their associated Email Logs.

- Each patient is uniquely identified by a UID.
- The email_logs table logs all email dispatches related to patient records.
- One-to-many relationship exists: One patient can have multiple associated email log entries.

NFC Healthcare Architecture Document

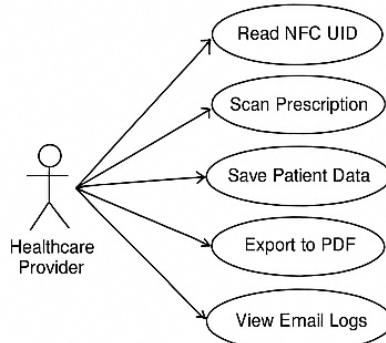
NFC Healthcare Architecture Document

1. Application Architecture Choice

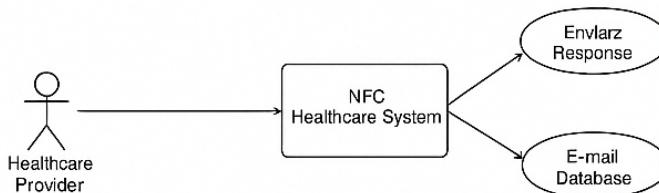
A monolithic architecture for the NFC Healthcare system is chosen; a Monolithic architecture is used for the application. The main components include the NFC application, Monolithic architecture, business logic, and patient data management. Advantages include scalability, development, and reduced latency. Disadvantages include disadvantages.

2. Application Diagrams

2.1 Use Case Diagram

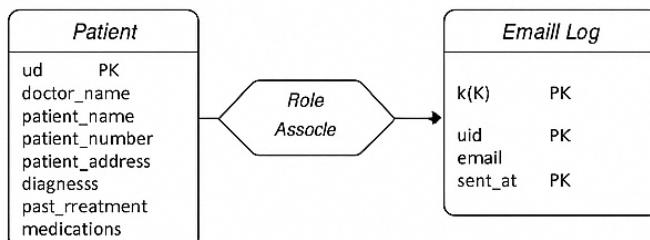


2.2 Data Flow Diagram (DFD)



3 Database

3.1 ER Diagram



3.2 Schema Design

```
CREATE "patients".
    id TEXT PRIMARY KEY,
    doctor_name NULL,
    patient_name NULL,
    patient_number NULL,
    patient_address,
    diagnosis,
    post_rereatment,
    medications
) prescription
```

```
CREATE TABLE patients()
    id INTEGER PRIMARY KEY,
    uid TEXT,
    email TEXT,
    sent_at TEXT
)
```

3.2 Schema Design

NFC Healthcare Architecture Document

```
CREATE TABLE patients (
```

```
    uid TEXT PRIMARY KEY,
```

```
    doctor_name TEXT,
```

```
    patient_name TEXT,
```

```
    patient_number TEXT,
```

```
    patient_address TEXT,
```

```
    diagnosis TEXT,
```

```
    past_treatment TEXT,
```

```
    medications TEXT,
```

```
    prescription TEXT
```

```
);
```

```
CREATE TABLE email_logs (
```

```
    id INTEGER PRIMARY KEY AUTOINCREMENT,
```

```
    uid TEXT,
```

```
    email TEXT,
```

```
    sent_at TEXT,
```

```
    FOREIGN KEY(uid) REFERENCES patients(uid)
```

```
);
```

4. Data Exchange Contract

The system manages the exchange of data primarily through local files and email services...

NFC Healthcare Architecture Document

5. Diagram Overview

- Use Case Diagram
- Data Flow Diagram
- ER Diagram
- Class Diagram
- Sequence Diagram
- Deployment Diagram

6. Conclusion

The NFC Healthcare application exemplifies a lightweight, self-contained healthcare management system...