# Second Normal Form (2NF) for the Given ER Diagram

To convert the database from First Normal Form (1NF) to Second Normal Form (2NF), we ensure that:

1. It is already in 1NF: Data is atomic, tables have primary keys, and there are no repeating groups.

2. No Partial Dependencies: All non-key attributes must be fully dependent on the entire primary key, not just part of it.

## Users Table

|  |  |  |  |
| --- | --- | --- | --- |
| User ID (PK) | Name | Email | Address |
| 1 | John | j@x.com | A1 |
| 2 | Sarah | s@y.com | A2 |

## User Phones Table

|  |  |
| --- | --- |
| User ID (FK) | Phone |
| 1 | 123456 |
| 2 | 654321 |

## Food Donations Table

|  |  |  |  |
| --- | --- | --- | --- |
| Donation ID (PK) | User ID (FK) | Food Description | Quantity |
| 101 | 1 | Bread | 10 |
| 102 | 2 | Rice | 5 |

## Collection Locations Table

|  |  |
| --- | --- |
| Donation ID (FK) | Location Collected By |
| 101 | Location A |
| 102 | Location B |

## Requests Table

|  |  |  |  |
| --- | --- | --- | --- |
| Request ID (PK) | User ID (FK) | Donation ID (FK) | Status |
| 201 | 1 | 101 | Pending |
| 202 | 2 | 102 | Approved |

## Deliveries Table

|  |  |  |  |
| --- | --- | --- | --- |
| Delivery ID (PK) | Request ID (FK) | Status | Time |
| 301 | 201 | In Transit | 10:30 AM |
| 302 | 202 | Delivered | 12:00 PM |