# Third Normal Form (3NF) for the Given ER Diagram

To convert the database from Second Normal Form (2NF) to Third Normal Form (3NF), we ensure that:  
  
1. Already in 2NF: The database does not have partial dependencies.  
2. No Transitive Dependencies: Non-key attributes must depend only on the primary key and not on another non-key attribute.

## 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 ID (FK) | Quantity |
| 101 | 1 | 1 | 10 |
| 102 | 2 | 2 | 5 |

## Food Items Table

|  |  |
| --- | --- |
| Food ID (PK) | Food Description |
| 1 | Bread |
| 2 | Rice |