|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item\_id | Item\_brand | Item\_name | Item\_price | Item\_MRP | Item\_save |
| 1 | One Plus | One Plus Nord | 30000.00 | 32000.00 | 2000.00 |
| 2 | Apple | Apple 11,Apple 11 | 95000.00 | 97000.00 | 2000.00 |
| 3 | Samsung | Samsung Galaxy Note 10 | 85000.00 | 89000.00 | 4000.00 |
| 4 | Redmi | Redmi K20 | 25000.00 | 28000.00 | 3000.00 |

System Description:

It’s usually a online shopping site specially made for mobile phones. Here, we can shop mobile phones very conveniently it has user friendly GUI that makes easier to shop for any user. User can search items and add it into the cart or wish list. We have filter option that can make user much easier to find required product. User can login/signup and can track his/her order. User can easily place/cancel order and will have order history of it. If user subscribes to newsletter it will get notified about sales, new offers and much more.

Normalization:

* Normalization is the process of organizing the data in the database.
* Normalization is used to minimize the redundancy from a relation or set of relations. It is also used to eliminate the undesirable characteristics like Insertion, Update and Deletion Anomalies.
* There are 4 types of normal forms 1NF 2NF 3NF BCNF

After 1NF

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item\_id | Item\_brand | Item\_name | Item\_price | Item\_MRP | Item\_save |
| 1 | One Plus | One Plus Nord | 30000.00 | 32000.00 | 2000.00 |
| 2 | Apple | Apple 11 | 95000.00 | 97000.00 | 2000.00 |
| 2 | Apple | Apple 11 | 95000.00 | 97000.00 | 2000.00 |
| 3 | Samsung | Samsung Galaxy Note 10 | 85000.00 | 89000.00 | 4000.00 |
| 4 | Redmi | Redmi K20 | 25000.00 | 28000.00 | 3000.00 |

After 2NF

|  |  |  |  |
| --- | --- | --- | --- |
| Item\_brand | Item\_price | Item\_MRP | Item\_save |
| One Plus | 30000.00 | 32000.00 | 2000.00 |
| Apple | 95000.00 | 97000.00 | 2000.00 |
| Apple | 95000.00 | 97000.00 | 2000.00 |
| Samsung | 85000.00 | 89000.00 | 4000.00 |
| Redmi | 25000.00 | 28000.00 | 3000.00 |

|  |  |
| --- | --- |
| Item\_id | Item\_name |
| 1 | One Plus Nord |
| 2 | Apple 11 |
| 2 | Apple 11 |
| 3 | Samsung Galaxy Note 10 |
| 4 | Redmi K20 |

After 3NF

Here, item-save is partially dependent on item\_MRP and Item\_Price

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item\_id | Item\_brand | Item\_name | Item\_price | Item\_MRP | Item\_save |
| 1 | One Plus | One Plus Nord | 30000.00 | 32000.00 | 2000.00 |
| 2 | Apple | Apple 11 | 95000.00 | 97000.00 | 2000.00 |
| 2 | Apple | Apple 11 | 95000.00 | 97000.00 | 2000.00 |
| 3 | Samsung | Samsung Galaxy Note 10 | 85000.00 | 89000.00 | 4000.00 |
| 4 | Redmi | Redmi K20 | 25000.00 | 28000.00 | 3000.00 |