1. Yes, it’s already in first normal form.

Second normal form

User Table

|  |  |  |  |
| --- | --- | --- | --- |
| UserID | U\_email | Fname | Lname |
| MA12 | [Mani@ymail.com](mailto:Mani@ymail.com) | Manish | Jain |
| PO45 | Pooja.g@gmail.com | Pooja | Magg |
| LA33 | [Lavle98@jj.com](mailto:Lavle98@jj.com) | Lavleen | Dhalla |
| Ch99 | [Cheki9j@ih.com](mailto:Cheki9j@ih.com) | Chimal | Bedi |
| DA74 | [Danu58@g.com](mailto:Danu58@g.com) | Dany | James |

Address Table

|  |  |  |  |
| --- | --- | --- | --- |
| UserID | City | State | Zip |
| MA12 | Bilaspur | Chatisgraph | 458991 |
| PO45 | Kacch | Gujrat | 832212 |
| LA33 | Raipur | Chatisgraph | 853578 |
| Ch99 | Trichy | Tamil Nadu | 632011 |
| DA74 | Trichy | Tamil Nadu | 645018 |

Third normal form

User Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| UserID | U\_email | Fname | Lname | CityID |
| MA12 | [Mani@ymail.com](mailto:Mani@ymail.com) | Manish | Jain | 1 |
| PO45 | Pooja.g@gmail.com | Pooja | Magg | 2 |
| LA33 | [Lavle98@jj.com](mailto:Lavle98@jj.com) | Lavleen | Dhalla | 3 |
| Ch99 | [Cheki9j@ih.com](mailto:Cheki9j@ih.com) | Chimal | Bedi | 4 |
| DA74 | [Danu58@g.com](mailto:Danu58@g.com) | Dany | James | 4 |

City Table

|  |  |  |
| --- | --- | --- |
| CityID | City | State |
| 1 | Bilaspur | Chatisgraph |
| 2 | Kacch | Gujrat |
| 3 | Raipur | Chatisgraph |
| 4 | Trichy | Tamil Nadu |

Zip Table

|  |  |
| --- | --- |
| CityID | Zip |
| 1 | 458991 |
| 2 | 832212 |
| 3 | 853578 |
| 4 | 632011 |
| 4 | 645018 |

1. Yes, it’s in first normal form.

Second normal form

Student Table

|  |  |  |
| --- | --- | --- |
| Student\_no | Student\_name | age |
| 1 | Kathy | 20 |
| 2 | Kathy | 19 |
| 3 | Ed | 21 |

State Table

|  |  |  |
| --- | --- | --- |
| Student\_no | State | Country |
| 1 | Haryana | India |
| 2 | Punjab | India |
| 3 | Punjab | India |

Third normal form

Student Table

|  |  |  |  |
| --- | --- | --- | --- |
| Student\_no | Student\_name | age | CountryID |
| 1 | Kathy | 20 | 1 |
| 2 | Kathy | 19 | 1 |
| 3 | Ed | 21 | 1 |

State Table

|  |  |
| --- | --- |
| Student\_no | State |
| 1 | Haryana |
| 2 | Punjab |
| 3 | Punjab |

Country Table

|  |  |
| --- | --- |
| CountryID | Country |
| 1 | India |

1. Yes.

Second normal form

Course Number table

|  |  |
| --- | --- |
| Stud\_No | Course\_No |
| 1 | C1 |
| 2 | C2 |
| 1 | C4 |
| 4 | C3 |
| 4 | C1 |
| 2 | C5 |

Course Fee Table

|  |  |
| --- | --- |
| Stud\_No | Course\_Fee |
| 1 | 1000 |
| 2 | 1500 |
| 1 | 2000 |
| 4 | 1000 |
| 4 | 1000 |
| 2 | 2000 |

1. Yes.

Second normal form

Genre table

|  |  |  |
| --- | --- | --- |
| Book id | Genre id | Genre Type |
| 1 | 1 | Gardening |
| 2 | 2 | Sports |
| 3 | 1 | Gardening |
| 4 | 3 | Travel |
| 5 | 2 | Sports |

Price table

|  |  |
| --- | --- |
| Book id | Price |
| 1 | 25.99 |
| 2 | 14.99 |
| 3 | 10.00 |
| 4 | 12.99 |
| 5 | 14.99 |

Third normal form

|  |  |
| --- | --- |
| Genre Id | Genre type |
| 1 | Gardening |
| 2 | Sports |
| 3 | Travel |

1. Yes.

Second normal formal

Store table

|  |  |
| --- | --- |
| Store Id | Purchase Location |
| 1 | Los Angeles |
| 2 | New York |
| 3 | San Francisco |

Customer table

|  |  |
| --- | --- |
| Customer ID | Store ID |
| 1 | 1 |
| 1 | 3 |
| 2 | 1 |
| 3 | 2 |
| 4 | 3 |

Third normal form

|  |  |
| --- | --- |
| Store Id | Purchase Location |
| 1 | Los Angeles |
| 2 | New York |
| 3 | San Francisco |

Customer table

|  |  |
| --- | --- |
| Customer ID | Store ID |
| 1 | 1 |
| 1 | 3 |
| 2 | 1 |
| 3 | 2 |
| 4 | 3 |

Store Count table

|  |  |
| --- | --- |
| Customer ID | Store\_count |
| 1 | 2 |
| 2 | 1 |
| 3 | 1 |
| 4 | 1 |

|  |  |  |
| --- | --- | --- |
| Student ID | Student Name | Subject ID |
| 18-Uni-205 | Ali | 01 |
| 19-Uni-335 | Rashid | 02 |
| 17-Uni-832 | Zafar | 03 |
| 18-Uni-192 | Asad | 04 |

|  |  |  |
| --- | --- | --- |
| Subject ID | Subject | Address |
| 01 | DATABASE | California |
| 02 | DLD | Pakistan |
| 03 | C++ | United States |
| 04 | DLD | United Kingdom |

|  |  |  |
| --- | --- | --- |
| Student ID | Subject ID | Address |
| 18-Uni-205 | 01 | California |
| 19-Uni-335 | 02 | Pakistan |
| 17-Uni-832 | 03 | United States |
| 18-Uni-192 | 04 | United Kingdom |

|  |  |  |
| --- | --- | --- |
| **UNIT CODE** | **UNIT NAME** | **COURSE CODE** |
| 1234 | DATABASE | CS1 |
| 5678 | C++ | CS1 |
| 7895 | OPERATING SYSTEM | CS1 |
| 4765 | OOP | CS2 |

|  |  |
| --- | --- |
| **UNIT CODE** | **COURSE NAME** |
| 1234 | COMPUTING |
| 5678 | COMPUTING |
| 7895 | COMPUTING |
| 4765 | BUSINESS &  COMPUTING |

|  |  |  |
| --- | --- | --- |
| **COURSE CODE** | **COURSE NAME** | **Unit Count** |
| CS1 | COMPUTING | 3 |
| CS2 | BUSINESS &  COMPUTING | 1 |

1. 1st NF

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Com id** | **Com Name** | **Prod id** | **Prod Name** | **Prod Quantity** |
| 1. | New Electronics | T1 | LCD | 333 |
| 1. | New Electronics | T2 | LED | 100 |
| 2. | Khan Electronic | T3 | Monitor | 140 |
| 3. | Neon Electronics | T3 | UPS | 565 |

2nd NF

|  |  |  |
| --- | --- | --- |
| **Com id** | **Com Name** | **Prod id** |
| 1. | New Electronics | T1 |
| 1. | New Electronics | T2 |
| 2. | Khan Electronic | T3 |
| 3. | Neon Electronics | T3 |

|  |  |  |
| --- | --- | --- |
| **Prod id** | **Prod Name** | **Prod Quantity** |
| T1 | LCD | 333 |
| T2 | LED | 100 |
| T3 | Monitor | 140 |
| T3 | UPS | 565 |

3rd NF

|  |  |  |
| --- | --- | --- |
| **Com id** | **Com Name** | **Prod Quantity** |
| 1. | New Electronics | 433 |
| 2. | Khan Electronic | 140 |
| 3. | Neon Electronics | 565 |

1. 1st NF

|  |  |  |
| --- | --- | --- |
| Employee | Age | Department |
| Melvin | 32 | Marketing |
| Melvin | 32 | Sales |
| Edward | 45 | Quality Assurance |
| Alex | 36 | Human Resource |

2nd NF

|  |  |  |
| --- | --- | --- |
| Employee | Age | ID |
| Melvin | 32 | 1 |
| Edward | 45 | 2 |
| Alex | 36 | 3 |

|  |  |
| --- | --- |
| ID | Department |
| 1 | Marketing |
| 1 | Sales |
| 2 | Quality Assurance |
| 3 | Human Resource |

3rd NF

|  |  |
| --- | --- |
| ID | Employee |
| 1 | Melvin |
| 2 | Edward |
| 3 | Alex |

|  |  |  |
| --- | --- | --- |
| Game ID | Game | Fee Structure |
| 1 | Basketball | 500 |
| 2 | Cricket | 600 |
| 3 | Tennis | 400 |