Chris Harms

DBMS HW 4

* 1. No Normal Form
  2. Not a relation, has multi-valued attributes
  3. There are anomalies, there’s modification anomalies with the book data, since it shows up repeatedly in multiple rows. There are rows that if they were deleted, the record of a book would also be deleted completely, so there’s deletion anomalies.
  4. There are the many anomalies that are caused by the poor structure, it has multivalued attributes
  5. AID identifies ALname, AFname, AInst. BNbr identifies BName. BNbr & AID identifies, BPublish, PubCity, BPrice.
  6. 1 NF =

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **AID** | ALname | AFname | AInst | **BNbr** | BName | BPublish | PubCity | BPrice | AuthBRoyalty |
| 10 | Gold | Josh | Sleepy Hollow U | 106 | JavaScript & html 5 | Wall & Vintage | Chicago, IL | 62.75 | 6.28 |
| 10 | Gold | Josh | Sleepy hollow u | 102 | Quick mobile apps | Gray brothers | Boston, ma | 49.95 | 2.50 |
| 24 | Shippen | Mary | Green lawns u | 104 | Innovative data management | Smith and sons | Dallas, tx | 158.65 | 15.87 |
| 24 | Shippen | Mary | Green lawns u | 106 | Java script and html 5 | Wall & vintage | Indianapolis, IN | 62.75 | 6 |
| 32 | Oswan | Jan | Middlestate college | 126 | Networks and data centers | Grey brothers | Boston, nh | 250 | 12.50 |
| 32 | Oswan | Jan | Middlestate college | 180 | Server infrastructure | Gray brothers | Boston, ma | 122.85 | 12.30 |
| 32 | Oswan | Jan | Middlestate college | 102 | Quick mobile apps | Gray brothers | Boston, ma | 45 | 2.25 |

2 NF =

|  |  |  |  |
| --- | --- | --- | --- |
| AID | ALname | AFname | AInst |
| 10 | Gold | Josh | Sleepy hollow u |
| 24 | Shippen | Mary | Green lawns u |
| 32 | Jan | Oswan | Middlestate college |

|  |  |  |
| --- | --- | --- |
| BNbr | BName | BPublish |
| 106 | JavaScript & html 5 | Wall & vintage |
| 102 | Quick Mobile Apps | Gray brothers |
| 104 | Innovative management | Smith and sons |
| 126 | Networks & data centers | Grey brothers |
| 180 | Server infrastructure | Gray Brothers |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AID | BNbr | PubCity | BPrice | AuthBRoyalty |
| 10 | 106 | Chicago, IL | 62.75 | 6.28 |
| 10 | 102 | Boston, MA | 49.95 | 2.50 |
| 24 | 104 | Dallas, TX | 158.65 | 15.87 |
| 24 | 106 | Indianapolis, IN | 62.75 | 6.00 |
| 32 | 126 | Boston, NH | 250 | 12.50 |
| 32 | 180 | Boston, MA | 122.85 | 12.30 |
| 32 | 102 | Boston, ma | 45 | 2.25 |

Already in 3 NF I think

1. Come back to this