## Pushpag Singh

| oc Neg | 1.) First Mormal form-  The relation comtains composite or multi-  Valued attribute, if violutes INF.  A relation is in INF if every attribute.  In that relation is single valued attribute.  Name Add. Phone Dep. id. Designoth Charges Pat. No. Pat Name |
|--------|---|
| D1     | Dr Naderm Abc 123 033-121 Neurolpy Profits. 5000 Pi Kahlid  |
|        | anic Phome Room No Room Type Bed No.  12345-1 042-1 R2 Normal B1  |
|        | In this way all the composite or myltivalued attribute will be removed.   |
|        | → SI will have only single valued attribute.  → Values Stored in column are of Jame  Nomain  → All columns are unique.  |
|        | -> 44 Cotton-tots time stray tot.   |

|         | Date.://   |
|---------|--|
| Subject |  |
|         |  |
| 22 -10- | and Mormal form-   |
| 2.)     | a table to be in 2NF, it should be in INF  |
|         | it should not have any partial dependency.   |
|         | 11 stout the rays and apendenty.   |
|         | poversition of the second section of the section of the second section of the se |
| Table   |  |
|         | 0,   |
| Dac No. | Changes 10   |
| DI.     | Nadeem Abc 123 Newso Proff. 5000 Proffesor   |
| ,       | Nagerall Mach  |
|         |  |
| Table   |  |
|         | Doc-phome  |
| DP Td   | Phone No. Doc No.  |
| 1       | 0333-123 D1  |
| 2.      | 042-123 D1   |
| 1       | 1 1 1 1 1 1 1 3 1 3 1 3 1 3 1 3 1 3 1 3  |
| 1       |  |
| Table   | 2  |
| ( Q Q Q | Doc-derogmation  |
|         |  |
| DD-10   |  |
| 1       | DI Neurology   |
| 2       | D2 Oxthopedic  |
| 3       | D4 ENT   |
| 1       | in in the second second  |
|         | first out 1 Av 20  |

| Subject  |             |         |                |                  | - Pr      |  |
|--|-------------|---------|----------------|------------------|-----------|--|
| And the second s |             |         |                | -                |           |  |
| Marketon of the state of the st |             |         |                |                  | Ly exp    |  |
| 0.44   | Table-4     |         |                |                  | , i.      |  |
|  | Pati        | ent_ta  | ble            |                  | (180) (C  | Sept. 18   |
|  | Patient n   | va. Pat | Name           | CNIC.            | Phone     |  |
| New York Control of the Control of t | Pl          |         | ~ /            | 12345-1          | 042-1     |  |
|  | P5          | - N     | homed          | 123 45-2         | 042-2     | who will   |
|  | deliza (P.) |         | 1              | \si ! ! ! .      | 1 1 11    |  |
|  | 3           | -Civ    |                |                  | , 25 M NO | 1  |
|  | , i         |         |                | 13.<br>X. 3. 25. | /         | i de la companya de l |
|  | Table -     | 5       | 1 N            | y E. N.          | r<br>i    | 7 -  |
|  |             |         | ent tabl       | 0                |           |  |
|  |             |         |                |                  |           | THE WALL   |
|  | DP ED       | Doc fd  | Pat 1          | Ed Ada           | mitted    | the state  |
|  | L           | DT      | P1             | 1 6              | 105       | FLICANA  |
|  | 2           | DI      | P5             |                  | les       | R. CARA  |
|  | 3           | D1      | F9             | -                | No.       |  |
|  |             | 1       | \ \            | , in             |           |  |
|  | 3           | •?      | `              | £**              | !         |  |
|  | X 17        | -       |                |                  | · Physic  | in Kleft in one  |
|  | Tabele-     | 6       | 15 F - 14 C    | _                |           | Nys.   |
|  |             |         | details to     | ib a             | i p-1-1   | 9 M 10 T   |
|  |             |         |                | to his           | en. 502 h | 1.   |
|  | Bed No.     |         | pora           | Room             | No.       | 5 2- 1   |
|  | Bed No.     |         | Room No        | Room             | Type      | · AF   |
| -  | B1          |         | R2             | 1                | mal       |  |
| - 17   | <b>Q</b> 5  |         | <del>R</del> 4 | 1                | bed       |  |
|  | 87          |         | RA             | Two              | o bed     |  |
|  | B           | 8       | R5             | Spe              | ici af    |  |
|  | - <u> </u>  | 9       | RG             | 1 Sp             | ecia)     |  |

Date.: \_\_/\_\_/\_ MON TUE WED THR FRI SAT SUN Subject\_ Table 7 Doc\_patient\_bed\_details Bed No Post MO Bed NO DP Id B1 / 2 BI 4 35 1 3) Third Normall Form (3NF) A table is said to be in 3NF when it is im 2 NF & it doesn't have any transitive dependency. Since above all table doesn't have any tromitie dependency 8 its also in 2NF.

| 9) Boyce & Codd Normal    | Form (BCNE)  |
|---------------------------|--|
| deals with certain        | yension of 3NF. This form - type of amolomy that is 2NF. |
| For a lable               | to be im BCNF, it must be                                |
|                           | earh functional dependency                               |
| Tables will be a          | s following -  |
| · Table-1                 |  |
| Doctor_into               | : Address Designitin Chargos hour                        |
| DI Dr Madeem              | Abc 123   Proff.   5000                                  |
| D2 Dr Nadeem  D4 Dr Erum  | kb13   Proff.   3000<br>  AK123   Ax. Proff.   3000      |
|                           |  |
|                           |  |
| • Table-2<br>Doctor_phone |  |
| Dephone id Doc N          | o Phome No<br>0333-123                                   |
| 1 D1                      | 0222   |

DI

D2

D4

1

1

2

3

4

042,123

0334-124

0321-123

| MON | TUE | WED | TI |
|-----|-----|-----|----|
| MOH |     |     | Γ  |

| AHA  | dentificate  | powered at the second  |  | property to the second   | and design the second second second          | MOR DE ME  |
|--|--|--|--|--|--|--|
|  | II NO CONTRACTOR OF THE PERSON OF THE  |  | and the same of the same   |  | a tipo suite anno albantesi antigiti de de c |  |
| • Table - 3  |  |  | ******   | de servicio de la composición de la co | and the second second second second          |  |
| Doct de  | of into  | Injus  | 6  |  |  |  |
| D. dept id   | Doc. 1   | 10 1   | sep ic   | 3  |  | and the second s |
|  | DI   | and the same of th | Neur   | gogs   |  | 101  |
| 2  | D3   | 1  | orth   | ope  | Aic  |  |
| 3  | D4.  |  | EVI  |  |  | 1-1  |
| opments of the an extending the dissertation interests to the product of the street are presented presented in | St. Pr. In Car   | d.   | 10   | 4  |  | 1.1.   |
|  | P. rod.  | P.   | <sub>.</sub> . <sub></sub>   | 1  |  | 3  |
|  | h ve   | 1  | 32   |  |  | J.   |
| • Table -4   |  |  | 14   |  | 1  |  |
|  | 1 Table  |  | adenticación de productivo de estado |  |  |  |
| Patient No   | Pat. Na  | me   | enic   |  | Phome  | White &  |
| PI   | Kahli  | d  | 12345-   | 1  | 042-1  | o1   |
| P5   | Ahmo   | ed   | 12845  | -2_  | 042-2  |  |
| P7   | Amun   | <u>~</u>   | 12345-   | .3   | 042-3  | 3: 0:15  |
|  | 19   |  | <u> </u>   | 1  | \ ';   | 1  |
| 1  | 13   |  | :  | ( <u>)</u>   |  | ( %<br>= 70 c  |
|  | N.G  |  | A  | 0  |  | de la companya della companya della companya de la companya della  |
| · Table-5  | 1  |  |  | ,  |  |  |
| Doc_pa   | itient t   | able   |  |  | · ·  |  |
| Docupe   |  |  |  |  |  |  |
| Doc_f  | pat id   | Doc  | No   | Pat  | ient No                                      | Admitted   |
|  | 17   | DI   | 1  |  | 21112  | Yes  |
| Q  |  | 01   |  | 6  | 25   | Yes  |
| 3  | THE PROPERTY OF THE PARTY OF TH | 10   |  | h 1  | PŦ   | No   |
|  |  |  |  |  |  |  |

Date.: \_/\_/
MON TUE WED THR FRI SAT SUN

| Sub | ect |  |
|-----|-----|--|
|     |     |  |

| • | - | - |    |     | - |
|---|---|---|----|-----|---|
| • |   | a | n  | *** | 6 |
| - | - | U | V. | _   | C |

| Room d | 10                                      |           |
|--------|---|-----------|
| Bed No | Room No                                 | Room Type |
| 81     | R2                                      | Normal    |
| 85     | R4                                      | Two bed   |
| вп     | RA                                      | Two bed   |
| 88     | RS                                      | Special   |
| 89     | R6                                      | Special   |
|        | *************************************** |           |

Table -7 117 1140

Doc\_pat\_bed table.

| DPD_id | Doc pat id | Bed No.          | r 1             |  |
|--------|------------|------------------|-----------------|--|
| L      | 1          | BI               | 14              |  |
| 2      | 2          | B7               |                 |  |
| 3      | A          | 85               |                 |  |
|        |            | 1                |                 |  |
|        | 1          | A to the San Man | Constitution of |  |

Now it satisfies condition of BCNF.