1. Given F = {a🡪b, b🡪c, c🡪 {d,e}}. What is the closure of b?
2. Given R(a,b,c,d,e,f). Given the following functional dependency:

F = {ab🡪 cdef, c 🡪 abdef}.

Identify the L M R, candidate keys, prime/non prime and normal form using the table below

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **L** | **M** | **R** |  | **Candidate Keys** |  | **prime** | **Non prime** |  | **Normal Form** |
|  | a | d | ab | a | d | BCNF |
|  | b | e | c | b | e |
|  | c | f |  | c | f |

1. Given R(a,b,c,d,e,f). Given the following functional dependency:

F = {ab🡪cdef , c 🡪abdef, e🡪 a}.

Identify the L M R, candidate keys, prime/non prime and normal form using the table below

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **L** | **M** | **R** |  | **Candidate Keys** |  | **prime** | **Non prime** |  | **Normal Form** |
|  | a | d | c | a | d | 3rd NF |
|  | b | f | ab | b | f |
|  | c |  | e | c |  |
|  | e |  |  | e |  |

e

1. Given R(a,b,c,d,e,f,g). Given the following functional dependency:

F = {ab 🡪 cdeg, c 🡪 abdef, d🡪 b}

Identify the L M R, candidate keys, prime/non prime and normal form using the table below

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **L** | **M** | **R** |  | **Candidate Keys** |  | **prime** | **Non prime** |  | **Normal Form** |
|  | a | e | c | a | e | 3rd NF |
|  | b | f | ab | b | f |
|  | c | g | ad | c | g |
|  | d |  |  | d |  |