**1NF:**

**STUDENT**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **student\_id** | **name** | **age** | **pet\_name** | **breed** | **type** |
| 102 | Heather Jones | 8 | Thomas | Siamese | Cat |
| 102 | Heather Jones | 8 | Peter | Jersey Wooly | Rabbit |
| 105 | Rachel Smith | 10 | Fluff | Persian | Cat |
| 105 | Rachel Smith | 10 | Rex | Collie | Dog |
| 101 | Jimmy Johnson | 11 | Baxter | Hound | Dog |
| 101 | Jimmy Johnson | 11 | Mandy | Siamese | Cat |
| 104 | Lola Jones | 10 | Thomas | Siamese | Cat |
| 104 | Lola Jones | 10 | Peter | Jersey Wooly | Rabbit |
| 106 | Peter Allen | 9 | Baxter | Beagle | Dog |
| 106 | Peter Allen | 9 | Ralph | Beagle | Dog |
| 103 | Lilly Sinclair | 11 | Rex | Bengal | Cat |
| 103 | Lilly Sinclair | 11 | Max | Siamese | Cat |

STUDENT(**student\_id**, name, age, pet\_name, breed, type)

**2NF:**

|  |  |  |
| --- | --- | --- |
| **STUDENT** | | |
| **student\_id** | **name** | **age** |
| 102 | Heather Jones | 8 |
| 105 | Rachel Smith | 10 |
| 101 | Jimmy Johnson | 11 |
| 104 | Lola Jones | 10 |
| 106 | Peter Allen | 9 |
| 103 | Lilly Sinclair | 11 |

|  |  |
| --- | --- |
| **STUDENT\_PET** | |
| **student\_id** | **pet\_id** |
| 102 | 1 |
| 102 | 2 |
| 105 | 3 |
| 104 | 4 |
| 101 | 5 |
| 101 | 6 |
| 104 | 1 |
| 104 | 2 |
| 106 | 7 |
| 106 | 8 |
| 103 | 9 |
| 103 | 10 |

|  |  |  |  |
| --- | --- | --- | --- |
| **PET** | | | |
| **pet\_id** | **pet\_name** | **breed** | **type** |
| 1 | Thomas | Siamese | Cat |
| 2 | Peter | Jersey Wooly | Rabbit |
| 3 | Fluff | Persian | Cat |
| 4 | Rex | Collie | Dog |
| 5 | Baxter | Hound | Dog |
| 6 | Mandy | Siamese | Cat |
| 7 | Thomas | Siamese | Cat |
| 8 | Peter | Jersey Wooly | Rabbit |
| 9 | Baxter | Beagle | Dog |
| 10 | Ralph | Beagle | Dog |
| 11 | Rex | Bengal | Cat |
| 12 | Max | Siamese | Cat |

STUDENT**(student\_id,** name, age**)**PET**(pet\_id,** pet**\_**name, breed, type**)**STUDENT\_PET**(student\_id, pet\_id,)**

**3NF:**

|  |  |  |
| --- | --- | --- |
| **STUDENT** | | |
| **student\_id** | **name** | **age** |
| 102 | Heather Jones | 8 |
| 105 | Rachel Smith | 10 |
| 101 | Jimmy Johnson | 11 |
| 104 | Lola Jones | 10 |
| 106 | Peter Allen | 9 |
| 103 | Lilly Sinclair | 11 |

|  |  |  |
| --- | --- | --- |
| **PET** | | |
| **pet\_id** | **pet\_name** | **breed\_id** |
| 1 | Thomas | 1 |
| 2 | Peter | 2 |
| 3 | Fluff | 3 |
| 4 | Rex | 4 |
| 5 | Baxter | 5 |
| 6 | Mandy | 1 |
| 7 | Baxter | 6 |
| 8 | Ralph | 7 |
| 9 | Rex | 7 |
| 10 | Max | 1 |

|  |  |
| --- | --- |
| **STUDENT\_PET** | |
| **student\_id** | **pet\_id** |
| 102 | 1 |
| 102 | 2 |
| 105 | 3 |
| 104 | 4 |
| 101 | 5 |
| 101 | 6 |
| 104 | 1 |
| 104 | 2 |
| 106 | 7 |
| 106 | 8 |
| 103 | 9 |
| 103 | 10 |

|  |  |  |
| --- | --- | --- |
| **BREED** | | |
| **breed\_id** | **breed** | **type\_id** |
| 1 | Siamese | 1 |
| 2 | Jersey Wooly | 2 |
| 3 | Persian | 1 |
| 4 | Collie | 3 |
| 5 | Hound | 3 |
| 6 | Beagle | 3 |
| 7 | Bengal | 1 |

|  |  |
| --- | --- |
| **TYPE** | |
| **type\_id** | **type** |
| 1 | Cat |
| 2 | Rabbit |
| 3 | Dog |

STUDENT**(student\_id,** name, age**)**PET**(pet\_id,** pet**\_**name, **breed\_id)** FK breed\_id -> BREEDSTUDENT\_PET**(student\_id, pet\_id,)** FK student\_id -> STUDENT  
 FK pet\_id -> PETBREED**(breed\_id,** breed**, type\_id)** FK type\_id -> TYPETYPE**(type\_id,** type**)**