Given a hash table with **size 20** and a hash function:

And the following data to be inserted from **left to right**:

*Youtube21, noobmaster96, xTyranx, Revan789, Mario, RoboFox, SnakeyBoy, Derp, Herpina, DonChef*

1. Insert the data into a hash table using **linear probing** if there is collision.
2. Insert the data into a hash table using **chaining** if there is collision.
3. Insert the data into a hash table using **linear probing** if there is collision, **but** the data order is:

*noobmaster96, xTyranx, RoboFox, Derp, Youtube21, Revan789, SnakeyBoy, Mario, DonChef, Herpina*

|  |  |
| --- | --- |
| Idx | value |
| 0 | Youtube21 |
| 1 | Robofox |
| 2 | SnakeyBoy |
| 3 |  |
| 4 | xTyranx |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |
| 9 |  |
| 10 | Noobmaster96 |
| 11 | Derp |
| 12 |  |
| 13 |  |
| 14 | Revan789 |
| 15 | Mario |
| 16 | Herpina |
| 17 |  |
| 18 | DonChef |
| 19 |  |

|  |  |
| --- | --- |
| Idx | value |
| 0 | Youtube21 -> RoboFox -> SnakeyBoy |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 | xTyranx |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |
| 9 |  |
| 10 | noobmaster96 |
| 11 | Derp |
| 12 |  |
| 13 |  |
| 14 | Revan789 |
| 15 | Mario |
| 16 | Herpina |
| 17 |  |
| 18 | DonChef |
| 19 |  |

|  |  |
| --- | --- |
| Idx | value |
| 0 | Robofox |
| 1 | Youtube21 |
| 2 | SnakeyBoy |
| 3 |  |
| 4 | xTyranx |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |
| 9 |  |
| 10 | Noobmaster96 |
| 11 | Derp |
| 12 |  |
| 13 |  |
| 14 | Revan789 |
| 15 | Mario |
| 16 | Herpina |
| 17 |  |
| 18 | DonChef |
| 19 |  |