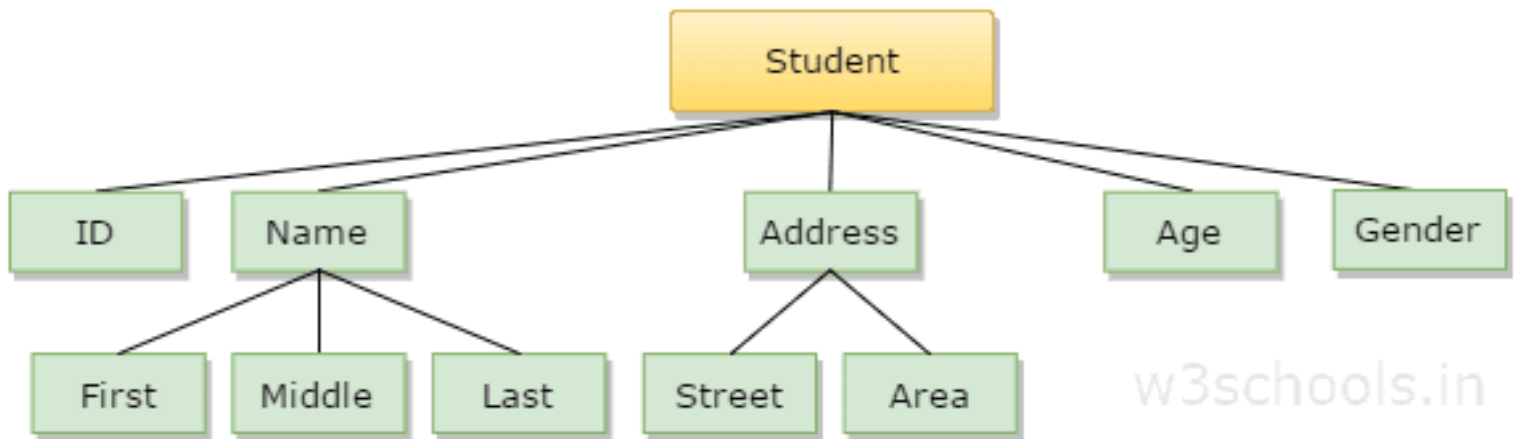


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Course : MCS 273 NoSQL (Lab 03 – Part A)



## 1. Create the tree structure in mongodb

```
> db.Student.insertMany([{_id:"id",parent:"student"},
... {_id:"Name",parent:"student"},
... {_id:"Address",parent:"student"},
... {_id:"Age",parent:"student"},
... {_id:"Gender",parent:"student"},
... {_id:"First",parent:"Name"},
... {_id:"Middle",parent:"Name"},
... {_id:"Last",parent:"Name"},
... {_id:"Street",parent:"Address"},
... {_id:"Area",parent:"Address"},
... {_id:"student",parent:null}])
{
  "acknowledged" : true,
  "insertedIds" : [
    "id",
    "Name",
    "Address",
    "Age",
    "Gender",
    "First",
    "Middle",
    "Last",
    "Street",
    "Area",
    "student"
  ]
}
```

## 2. Create an index on the field parent and child.

```
> db.Student.createIndex( {parent:1});
{
  "createdCollectionAutomatically" : false,
  "numIndexesBefore" : 1,
  "numIndexesAfter" : 2,
  "ok" : 1
}
> db.Student.createIndex( {children:1});
{
  "createdCollectionAutomatically" : false,
  "numIndexesBefore" : 2,
  "numIndexesAfter" : 3,
  "ok" : 1
}
```

## 3. Insert parent and child preference nodes.

```
> db.student1.insertMany([ {_id:"First",children:[]},
... {_id:"Middle",children:[]},
... {_id:"Last",children:[]},
... {_id:"Street",children:[]},
... {_id:"Area",children:[]},
... {_id:"id",children:[]},
... {_id:"Gender",children:[]},
... {_id:"Name",children:["First","Middle","Last"]},
... {_id:"Address",children:["Street","Area"]},
... {_id:"student",children:["id","Name","Address","Age","Gender"]}])
{
  "acknowledged" : true,
  "insertedIds" : [
    "First",
    "Middle",
    "Last",
    "Street",
    "Area",
    "id",
    "Gender",
    "Name",
    "Address",
    "student"
  ]
}
>
```

#### 4. Retrieve parent nodes(First, Street, Id).

```
> db.Student.findOne({_id:"First"}).parent
Name
> db.Student.findOne({_id:"Street"}).parent
Address
> db.Student.findOne({_id:"id"}).parent
student
>
```

#### 5. Retrieve child nodes(Address, Name, Student).

```
> db.Student1.findOne({_id:"Address"}).childre
[ "Street", "Area" ]
> db.Student1.findOne({_id:"Name"}).children
[ "First", "Middle", "Last" ]
> db.Student1.findOne({_id:"student"}).children
[ "id", "Name", "Address", "Age", "Gender" ]
>
```