Islamic University of Technology
Lab Task 07
CSE 4410 : DBMS-II Lab

Submitted To :

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Report :

Working code :

```
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use Lab07_SocialMediaPlatform
<a>
db.User.insertOne({"name": "Sian Ashsad",
  "email": "sianashsad@iut-dhaka.edu",
  "password": "password123"})
<b>
 db.User.insertMany([
  {
    "name": "Dihan Rhidwan",
   "email": "rhidwanrashid@iut-dhaka.edu",
   "password": "passthisguy",
   "phone_no" : 01824234252,
   "dob" : "14/3/2000",
   "address":"boardbazar",
   "hobbies":["gaming","watchingTV"],
   "created_at": new Date()
  },
  {
    "name": "Jawadul Islam",
   "email": "jawadhawad@iut-dhaka.edu",
   "password": "password123",
   "phone_no" : 01834469662,
   "address":"hall",
   "hobbies":["daydreaming","crying"],
   "created_at": new Date()
  },
  {
   "name": "Mashrur Ahsan",
  "email": "mashrurahsan@iut-dhaka.edu",
  "password": "akashvoratara",
  "phone_no" : 01524234252,
  "dob" : "14/2/2001",
  "address":"dhaka",
  "hobbies":["gaming","traveling"],
```

```
  },
  {
    "name": "Nazmul Hossain",
  "email": "nazagaza@iut-dhaka.edu",
  "password": "nazmul4532",
  "phone_no" : 01534469662,
  "address":"residential",
  "hobbies":["sketching","singing"],
  "created_at": new Date()
  },
   ])

<c>
 db.User.insertOne(
 {name:"Naz",email: "nazagaza@gmail.com", password:"somethingspass",
phoneNo:012324253353, address:"hall",
workingStatus:{designation:"student", Semester: 2}, createdAt: new
Date()})

<d>
db.User.updateOne({_id: ObjectId('641005970f5bfff2d68cb10a')},
                   {'$addToSet' : {'follows' : {
                       follower_id: "641008d20f5bfff2d68cb10f"
                   } }})
db.User.updateOne({_id: ObjectId('641008d20f5bfff2d68cb110')},
                   {'$addToSet' : {'follows' : {
                       follower_id: "641005970f5bfff2d68cb10a"
                   } }})
db.User.updateOne({_id: ObjectId('641005970f5bfff2d68cb10a')},
                   {'$addToSet' : {'follows' : {
                       follower_id: "641008d20f5bfff2d68cb110"
                   } }})
db.User.updateOne({_id: ObjectId('641008d20f5bfff2d68cb110')},
                   {'$addToSet' : {'follows' : {
                       follower_id: "641008d20f5bfff2d68cb10f"
                   } }})
db.User.updateOne({_id: ObjectId('64149ee06f7de4e1ae347cc6')},
                   {'$addToSet' : {'follows' : {
                   follower_id: "641008d20f5bfff2d68cb110"
                   } }})
```

```
//Sian's followers
db.User.updateOne({_id: ObjectId('641005970f5bfff2d68cb10a')},
{'$addToSet' : {'followers' : {
  follower_id: "641008d20f5bfff2d68cb10f"
} }})


db.User.updateOne({_id: ObjectId('641005970f5bfff2d68cb10a')},
{'$addToSet' : {'followers' : {
  follower_id: "641008d20f5bfff2d68cb110"
} }})


db.User.updateOne({_id: ObjectId('641005970f5bfff2d68cb10a')},
{'$addToSet' : {'followers' : {
  follower_id: "64149ee06f7de4e1ae347cc6"
} }})


db.User.updateOne({_id: ObjectId('641005970f5bfff2d68cb10a')},
{'$addToSet' : {'followers' : {
  follower_id: "64149ee06f7de4e1ae347cc7"
} }})


// Nazmul's followers
db.User.updateOne({_id: ObjectId('64149ee06f7de4e1ae347cc7')},
{'$addToSet' : {'followers' : {
  follower_id: "641008d20f5bfff2d68cb10f"
} }})


db.User.updateOne({_id: ObjectId('64149ee06f7de4e1ae347cc7')},
{'$addToSet' : {'followers' : {
  follower_id: "641008d20f5bfff2d68cb110"
} }})


db.User.updateOne({_id: ObjectId('64149ee06f7de4e1ae347cc7')},
{'$addToSet' : {'followers' : {
  follower_id: "64149ee06f7de4e1ae347cc6"
} }})


db.User.updateOne({_id: ObjectId('64149ee06f7de4e1ae347cc7')},
{'$addToSet' : {'followers' : {
```

```
    follower_id: "641005970f5bfff2d68cb10a"
} }})

//Dihan's followers
db.User.updateOne({_id: ObjectId('641008d20f5bfff2d68cb10f')},
{'$addToSet' : {'followers' : {
  follower_id: "641005970f5bfff2d68cb10a"
} }})
db.User.updateOne({_id: ObjectId('641008d20f5bfff2d68cb10f')},
{'$addToSet' : {'followers' : {
  follower_id: "64149ee06f7de4e1ae347cc7"
} }})

//Jawad's followers
db.User.updateOne({_id: ObjectId('641008d20f5bfff2d68cb110')},
{'$addToSet' : {'followers' : {
  follower_id: "641005970f5bfff2d68cb10a"
} }})
db.User.updateOne({_id: ObjectId('641008d20f5bfff2d68cb110')},
{'$addToSet' : {'followers' : {
  follower_id: "64149ee06f7de4e1ae347cc7"
} }})
db.User.updateOne({_id: ObjectId('641008d20f5bfff2d68cb110')},
{'$addToSet' : {'followers' : {
  follower_id: "641008d20f5bfff2d68cb10f"
} }})

//mashrur's followers
db.User.updateOne({_id: ObjectId('64149ee06f7de4e1ae347cc6')},
{'$addToSet' : {'followers' : {
  follower_id: "641005970f5bfff2d68cb10a"
} }})
db.User.updateOne({_id: ObjectId('64149ee06f7de4e1ae347cc6')},
{'$addToSet' : {'followers' : {
  follower_id: "64149ee06f7de4e1ae347cc7"
} }})

<e>
```

```
db.Posts.insertMany([{userId:"641005970f5bfff2d68cb10a",content:"Status :
Dead",likes:["641008d20f5bfff2d68cb10f","641008d20f5bfff2d68cb110"],
createdAt: new Date()}])


<f>
db.Posts.insertMany([{userId:"641008d20f5bfff2d68cb10f",content:"Battery
Low",likes:["641008d20f5bfff2d68cb110","641005970f5bfff2d68cb10a"],comment
s:[{uid:"641008d20f5bfff2d68cb110",comment:"Agreed"},{uid:"641005970f5bfff
2d68cb10a",comment:"sus"}], createdAt: new Date()}])
```

→**3**

```
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<a>

db.Posts.aggregate([
    {
      $sort: {
        createdAt: -1
      }
    },
    {
      $lookup: {
        from: "User",
        localField: "userId",
        foreignField: "_id",
        as: "user"
      }
    },
    {
      $project: {
        _id: 1,
        "user": "$user.name"
      }
    }
]);
```

Result :

```
< {
    _id: ObjectId("64157c63e7eb3028f955bb1f"),
    user: [
      'Nazmul Hossain'
    ]
  }
  {
    _id: ObjectId("641017260f5bfff2d68cb113"),
    user: [
      'Dihan Rhidwan'
    ]
  }
  {
    _id: ObjectId("641016690f5bfff2d68cb112"),
    user: [
      'Sian Ashsad'
    ]
  }
```

```
<b>
db.Posts.find({
  createdAt: {
      $gte: new Date(Date.now() - 24 * 60 * 60 * 1000)
  }
})
```

Result :

```
> db.Posts.find({
    createdAt: {
        $gte: new Date(Date.now() - 24 * 60 * 60 * 1000)
    }
})
< {
    _id: ObjectId("64157c63e7eb3028f955bb1f"),
    userId: '64149ee06f7de4e1ae347cc7',
    content: 'Double Staff of Homa',
    likes: [
        '64149ee06f7de4e1ae347cc6',
        '641008d20f5bfff2d68cb110',
        '641008d20f5bfff2d68cb10f'
    ],
    comments: [
        {
            uid: '641005970f5bfff2d68cb10a',
            comment: 'Lucky MF'
        },
        {
            uid: '641008d20f5bfff2d68cb10f',
            comment: 'Wanted Rust got Homa :3'
        }
```

```
<c>
db.User.aggregate([
    {
        $match: {
            "followers.3": { $exists: true }
        }
    }
])
```

Result :

```
> db.User.aggregate([
    {
      $match: {
        "followers.3": { $exists: true }
      }
    }
  ])
< {
    _id: ObjectId("641005970f5bfff2d68cb10a"),
    name: 'Sian Ashsad',
    email: 'sianashsad@iut-dhaka.edu',
    password: 'password123',
    follows: [
      {
        follower_id: '641008d20f5bfff2d68cb10f'
      },
      {
        follower_id: '641008d20f5bfff2d68cb110'
      }
    ],
    phone_no: 1834464662,
    dob: '31/7/2001',
    address: 'Uttara',
    hobbies: [
      'Playing genshin',
```

```
    'Listening to music'
  ],
  created_at: 2023-03-17T17:00:10.918Z,
  followers: [
    {
      follower_id: '641008d20f5bfff2d68cb10f'
    },
    {
      follower_id: '641008d20f5bfff2d68cb110'
    },
    {
      follower_id: '64149ee06f7de4e1ae347cc6'
    },
    {
      follower_id: '64149ee06f7de4e1ae347cc7'
    }
  ]
}
{
  _id: ObjectId("64149ee06f7de4e1ae347cc7"),
  name: 'Nazmul Hossain',
  email: 'nazagaza@iut-dhaka.edu',
  password: 'nazmul4532',
  phone_no: 1534469662,
  address: 'residential',
```

```
  ],
  created_at: 2023-03-17T17:09:52.958Z,
  follows: [
    {
      follower_id: '64149ee06f7de4e1ae347cc6'
    },
    {
      follower_id: '641008d20f5bfff2d68cb10f'
    }
  ],
  followers: [
    {
      follower_id: '641008d20f5bfff2d68cb10f'
    },
    {
      follower_id: '641008d20f5bfff2d68cb110'
    },
    {
      follower_id: '64149ee06f7de4e1ae347cc6'
    },
    {
      follower_id: '641005970f5bfff2d68cb10a'
    }
  ]
}
```

```
<d>
db.User.aggregate([
  {
    $match: {
      "follows.3": { $exists: true }
    }
  }
])
```

Result :

```
> db.User.aggregate([
    {
      $match: {
        "follows.3": { $exists: true }
      }
    }
  ])
< {
    _id: ObjectId("64149ee06f7de4e1ae347cc6"),
    name: 'Mashrur Ahsan',
    email: 'mashrurahsan@iut-dhaka.edu',
    password: 'akashvoratara',
    phone_no: 223426730,
    dob: '14/2/2001',
    address: 'dhaka',
    hobbies: [
      'gaming',
      'traveling'
    ],
    follows: [
      {
        follower_id: '641005970f5bfff2d68cb10a'
      },
      {
        follower_id: '641008d20f5bfff2d68cb10f'
      },
```

```
    {
      follower_id: '64149ee06f7de4e1ae347cc7'
    },
    {
      follower_id: '641008d20f5bfff2d68cb110'
    }
  ],
  followers: [
    {
      follower_id: '641005970f5bfff2d68cb10a'
    },
    {
      follower_id: '64149ee06f7de4e1ae347cc7'
    }
  ]
}
```