

Answers

a)

```
db.createCollection('games')
```

b)

```
db.games.save({ name: "Spy Hunter", genre: "Racing", rating: 76});  
db.games.save({ name: "Mario Kart 64", genre: "Racing", rating: 96});  
db.games.save({ name: "Tetris", genre: "Puzzle", rating: 83});  
db.games.save({ name: "Mega Man 5", genre: "Platformer", rating: 81});  
db.games.save({ name: "Star Fox", genre: "Action", rating: 71});
```

c)

```
db.games.find()
```

d)

```
db.games.findOne({name:"Mario Kart 64"})
```

e)

```
db.games.find().limit(3).sort({'rating': -1})
```

f)

```
db.games.update(  
  {name:"Star Fox"},  
  {  
    $set: {'achievements':[  
      {'name':'Collect 50 rings', 'points':100},  
      {'name':'Finish under 2 minutes', 'points':135}  
    ]  
  }  
})
```

Other way: because it's javascript, there are any number of steps they can take. Just want them to use save()

```
var g = db.games.findOne({'name':'Mega Man 5'})  
g.achievements = []  
g.achievements.push({'name':'Defeat Two Wheeler', 'points':200})  
g.achievements.push({'name':'Beat the game', 'points':1200})  
db.games.save(g)
```

g)

```
db.games.find({'achievement': {'$all': ['Game Master', 'Speed Demon']}});
```

```
h)
db.games.find({
  achievements: {$elemMatch: {}}
})
```

```
OR
db.games.find({achievement: { $exists: true}});
```

Map reducer

```
var mapper = function() {
  if(this.scores) {
    emit(this.scores[0]['name'], this.scores[0]['score'])
    emit(this.scores[1]['name'], this.scores[1]['score'])
    emit(this.scores[2]['name'], this.scores[2]['score'])
  }
};
```

```
var reducer = function(keyPlayer, valuesScores) {
  return Array.sum(valuesScores)
};
```

```
db.games.mapReduce(mapper, reducer, { out: "derrick_example" })
```