Core Data - Query

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One Model and Query

```
class Person {
        var name: String?
        var birthYear: Int?
        var friend: Person?
}

let request: NSFetchRequest<Person> = NSFetchRequest(entityName: "Person")
let predicate = NSPredicate(format: ” name CONTAINS 'David' && birthYear > 2000”)
request.predicate = predicate
```

One-to-One Relationship and Query

```
class Person {
        var name: String?
        var birthYear: Int?
        var friend: Person?
}
```

find a person whose has friend and that friend has to meet certain criteria.

each person in friend, return a person whose name contains "David" and whose (David's) birth year is greater than 2000.

```
let request: NSFetchRequest<Person> = NSFetchRequest(entityName: "Person")
let predicate = NSPredicate(format: ”friend.name CONTAINS 'David' && friend.birthYear > 2000”)
request.predicate = predicate
```

One-to-Many Relationship and Subquery

```
class Person {
        var name: String?
        var birthYear: Int?
        var friends: NSSet?
}
```

find a person whose has friends(at least one) and those friends has to meet certain criteria.

each person in friends collection, return a collection of persons whose name contains "David" and whose (David's) birth year is greater than 2000.

```
let request: NSFetchRequest<Person> = NSFetchRequest(entityName: "Person")
let predicate = NSPredicate(format: "SUBQUERY(friends, $x, $x.name CONTAINS 'David' &&
$x.birthYear > 2000).@count > 0")
request.predicate = predicate
```

One-to-Many Relationship and Subquery

For example, relationship may go one more level deeper: friends' friends whose name contains "Lisa" and whose (Lisa's) birth year is greater than 2005. For this case, nested Subquery can be used. That is, a Subquery contains another Subquery to verify one more deep relationship:

```
let request: NSFetchRequest<Person> = NSFetchRequest(entityName: "Person")

let predicate = NSPredicate(format: "SUBQUERY(friends, $x,

 SUBQUERY($x.friends, $y, $y.name CONTAINS 'Lisa' && $y.birthYear > 2005).@count > 0).@count > 0")

request.predicate = predicate
```