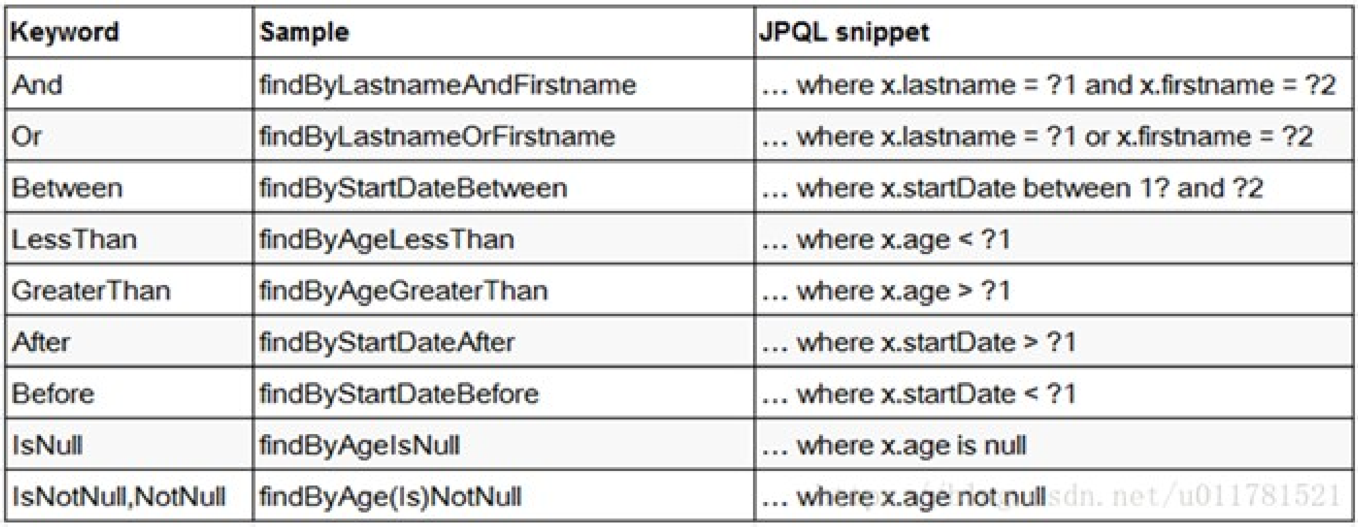
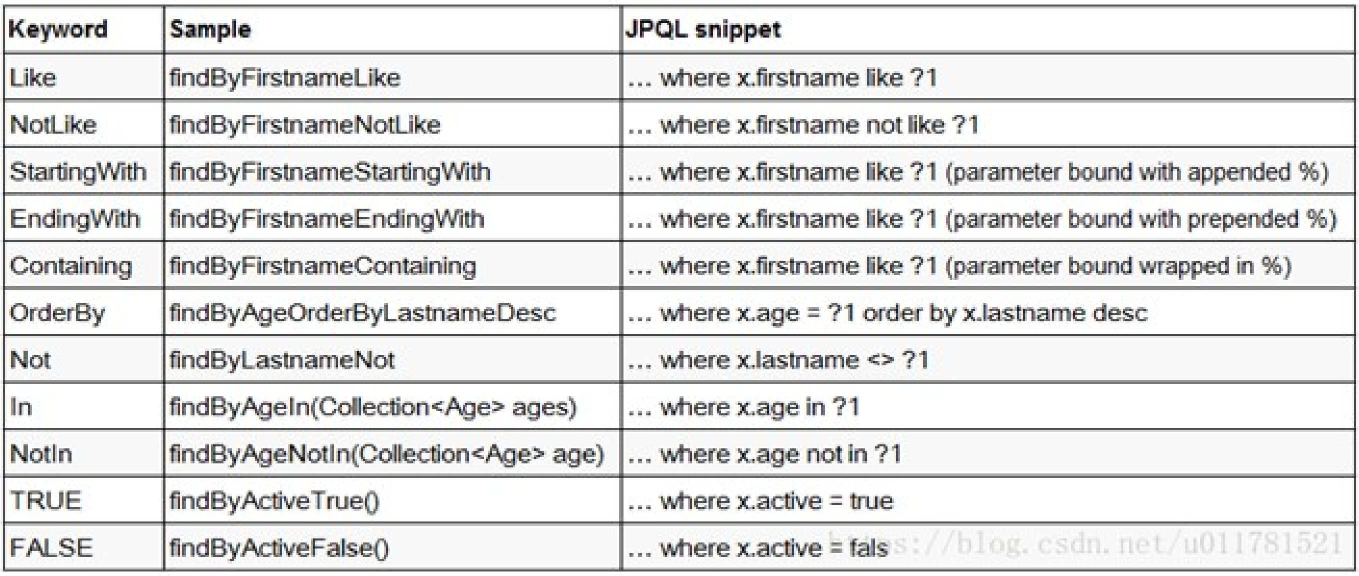
一、基于MongoRepository开发CRUD

Spring Data提供了对mongodb数据访问的支持，我们只需要继承MongoRepository类，按照Spring Data规范就可以了

SpringData 方法定义规范



Keyword	Sample	JPQL snippet
And	findByLastnameAndFirstname	… where x.lastname = ?1 and x.firstname = ?2
Or	findByLastnameOrFirstname	… where x.lastname = ?1 or x.firstname = ?2
Between	findByStartDateBetween	… where x.startDate between 1? and ?2
LessThan	findByAgeLessThan	… where x.age < ?1
GreaterThan	findByAgeGreaterThan	… where x.age > ?1
After	findByStartDateAfter	… where x.startDate > ?1
Before	findByStartDateBefore	… where x.startDate < ?1
IsNull	findByAgeIsNull	… where x.age is null
IsNotNull,NotNull	findByAge(Is)NotNull	… where x.age not null



Keyword	Sample	JPQL snippet
Like	findByFirstnameLike	… where x.firstname like ?1
NotLike	findByFirstnameNotLike	… where x.firstname not like ?1
StartingWith	findByFirstnameStartingWith	… where x.firstname like ?1 (parameter bound with appended %)
EndingWith	findByFirstnameEndingWith	… where x.firstname like ?1 (parameter bound with prepended %)
Containing	findByFirstnameContaining	… where x.firstname like ?1 (parameter bound wrapped in %)
OrderBy	findByAgeOrderByLastnameDesc	… where x.age = ?1 order by x.lastname desc
Not	findByLastnameNot	… where x.lastname <> ?1
In	findByAgeIn(Collection<Age> ages)	… where x.age in ?1
NotIn	findByAgeNotIn(Collection<Age> age)	… where x.age not in ?1
TRUE	findByActiveTrue()	… where x.active = true
FALSE	findByActiveFalse()	… where x.active = false

1、不是随便声明的，而需要符合一定的规范

2、 查询方法以find | read | get开头

3、 涉及条件查询时，条件的属性用条件关键字连接

4、 要注意的是：条件属性首字母需要大写

5、 支持属性的级联查询，但若当前类有符合条件的属性则优先使用，而不使用级联属性,若需要使用级联属性，则属性之间使用_强制进行连接

1、添加Repository类

```
@Repository
public interface UserRepository extends MongoRepository<User, String> {
}
```

2、编写测试类

```
@RestController
@RequestMapping("/mongo2")
public class TestMongo2 {

    @Autowired
    private UserRepository userRepository;

    //添加
    @GetMapping("create")
    public void createUser() {
        User user = new User();
        user.setAge(20);
        user.setName("张三");
        user.setEmail("3332200@qq.com");
        User user1 = userRepository.save(user);
    }

    //查询所有
    @GetMapping("findAll")
    public void findUser() {
        List<User> userList = userRepository.findAll();
        System.out.println(userList);
    }

    //id查询
    @GetMapping("findId")
    public void getById() {
        User user = userRepository.findById("60b8d57ed539ed5b124942de").get();
        System.out.println(user);
    }

    //条件查询
    @GetMapping("findQuery")
```

```java
    public void findUserList() {
        User user = new User();
        user.setName("张三");
        user.setAge(20);
        Example<User> userExample = Example.of(user);
        List<User> userList = userRepository.findAll(userExample);
        System.out.println(userList);
    }

    //模糊查询
    @GetMapping("findLike")
    public void findUsersLikeName() {
        //创建匹配器，即如何使用查询条件
        ExampleMatcher matcher = ExampleMatcher.matching() //构建对象
                .withStringMatcher(ExampleMatcher.StringMatcher.CONTAINING) //改变默认
                .withIgnoreCase(true); //改变默认大小写忽略方式：忽略大小写
        User user = new User();
        user.setName("三");
        Example<User> userExample = Example.of(user, matcher);
        List<User> userList = userRepository.findAll(userExample);
        System.out.println(userList);
    }

    //分页查询
    @GetMapping("findPage")
    public void findUsersPage() {
        Sort sort = Sort.by(Sort.Direction.DESC, "age");
//0为第一页
        Pageable pageable = PageRequest.of(0, 10, sort);
//创建匹配器，即如何使用查询条件
        ExampleMatcher matcher = ExampleMatcher.matching() //构建对象
                .withStringMatcher(ExampleMatcher.StringMatcher.CONTAINING) //改变默认
                .withIgnoreCase(true); //改变默认大小写忽略方式：忽略大小写
        User user = new User();
        user.setName("三");
        Example<User> userExample = Example.of(user, matcher);
//创建实例
        Example<User> example = Example.of(user, matcher);
        Page<User> pages = userRepository.findAll(example, pageable);
        System.out.println(pages);
    }

    //修改
    @GetMapping("update")
    public void updateUser() {
        User user = userRepository.findById("60b8d57ed539ed5b124942de").get();
        user.setName("张三_1");
        user.setAge(25);
        user.setEmail("883220990@qq.com");
        User save = userRepository.save(user);
        System.out.println(save);
    }

    //删除
    @GetMapping("delete")
    public void delete() {
        userRepository.deleteById("60b8d57ed539ed5b124942de");
    }
}
```

3、SpringData方法规范

```
@GetMapping("testMethod2")
public void testMethod2() {
    List<User> users = userRepository.findByNameLike("张");
    System.out.println(users);
}

@GetMapping("testMethod1")
public void testMethod1() {
    List<User> users = userRepository.findByName("张三");
    System.out.println(users);
}

@Repository
public interface UserRepository extends MongoRepository<User, String> {

    List<User> findByName(String name);

    List<User> findByNameLike(String name);
}
```