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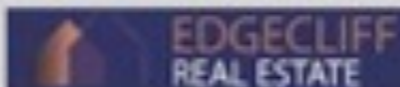


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1 1 1



New

\$425,000

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1 1 1



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New

1 of 14

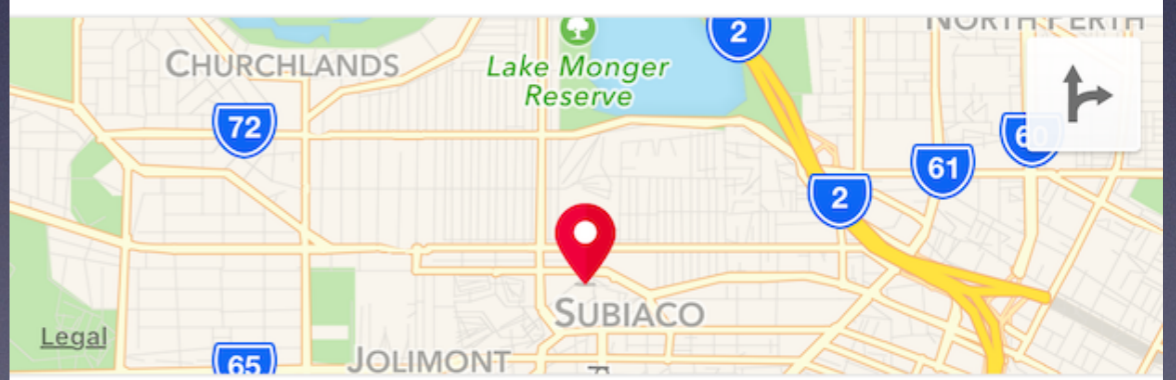
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2 1 1

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SET DATE SALE - Genuine sale, will be sold with all offers presented by 5:00pm Monday 9th May, unless sold prior. The owner reserves the right to accept an offer prior to the end date.

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真实世界的故事

一切从CoreData开始

Core Data Migrations

Jacki Li edited this page on Apr 29, 2015 · 9 revisions

Cataloging a new database version and testing your migration doesn't cause regressions

Background: we have a fixture database we use in RESI's unit test suite that we continually run upgrade tests against. After you add a new model you need to take the previous version of the fixture database, load it up in the Simulator so it's automatically migrated, take a copy and place it into the test suite so it can be upgraded in the future.

Steps

- Clean your iOS 8.x simulator.
- Build and Run RESI-Internal on the lowest supported version(iOS 8.x, iPhone 4S) of the iOS simulator. This creates a clean db in the app group container, along with sqlite log handlers.
- Remove the sqlite **log** files, Database.sqlite-shm, Database.sqlite-wal. `rm`
`~/Library/Developer/CoreSimulator/Devices/CBA0C38C-EDED-48FB-B208-04543D12D7CC/data/Containers/Shared/AppGroup/80FA4FC6-040C-4569-A681-0B61664763AC/Database.sqlite-*` (To get the directory of the file, you can set a breakpoint on the init method of RADCoreDataManager and then run the app, and the storeURL is what you want.)

- Replace the CoreData store created by the app

```
~/Library/Developer/CoreSimulator/Devices/CBA0C38C-EDED-48FB-B208-04543D12D7CC/data/Containers/Shared/AppGroup/80FA4FC6-040C-4569-A681-0B61664763AC/Database.sqlite with the most recent test database. EG:  
apps/realestate/test/fixtures/Database_Model_v9.sqlite .
```

```
cp apps/realestate/test/fixtures/Database_model_v9.sqlite ~/Library/Developer/CoreSi
```

- Disconnect your machine from the network / Internet.
- Prevent the app from removing un-bookmarked listings automatically by commenting out some code from `RESIAppDelegate.m` .

```
- (void)configureCoreDataAndLoadAppChrome {  
    ...  
    /**  
     * TODO: Comment out these lines below  
     */  
    [[RADPropertyList inactiveBookmarkedListingsInManagedObjectContext:self.coreDataMa  
    [self.coreDataManager.managedObjectContext saveAndLogError];  
  
    ...  
}
```

- Build and Run RESI-Internal again.
- Copy `Database.sqlite` out of the Simulator's Documents directory back into `realestate/test/fixtures` under the name of the new database model.

```
cp Database.sqlite ~/Xcode/REA/mobile-core-ios/apps/realestate/test/fixtures/Databas
```

- Add the new Database fixture file to the project, adding it to the Resi-Tests target.
- Add the new version to the large `for` loop in `DatabaseMigrationSpec.m`

```
for (NSString *database in @[@"Database_model_v1", @"Database_model_v2", @"Databa
{
    context([NSString stringWithFormat:@"when migrating from version (%@)", databa
        ...
    });
    ...
}
```

- Alter the test accordingly.

Note

The point of the test is to test the *end result* of migrating each previous version to the current version. As new elements are added (or removed) in future versions, this test should be expecting that things are added or removed from the previous version when migrated to the current one.

Core Data Migrations Pt. 2 Adding a new CoreData Model Version

Angus McInnes edited this page on Sep 1, 2015 · 3 revisions

These are the instructions to add a new core data version into RESI. Follow the instructions carefully and check with Jesse and Anthony if you're unsure about anything mentioned. Feel free to add gotchas, or notes to these pages.

New Data Model Versions and working on master

It's incredibly important to be aware that we should only ever have **one** model version change per release. While in development between releases **all** changes should go in **one*** data model version. The moment a model version is put into a release it will need to be supported and tested going forward. After a release any subsequent changes must go in a new version, and

The goal is to reduce the number of new core data versions we create as it increases the complexity of the migration user's devices must go through.

Changing the structure of of Transformable data types


The `Listing` and `ProjectListing` entities have a number of Transformable properties - if you change the format of these you **MUST** make sure you test the upgrade path, as incompatible deserialisation will cause crashes.

Toggling Core Data Migrations and New Versions

There is still a lot of discussion to be had on this topic, and no immediate solution has been discussed at this stage.

Create the new datamodeld file and a custom migration

- Select RESI-Domain-Model.xcdatamodeld
 - Editor -> Add Model Version...
 - Increment the version number by one (eg: Resi-Domain-Model 8) and base it on the previous version.

Select the new .datamodeld file in the Project Navigator and head to the File Inspector  (Command + Option + 1) - Set Core Data Model Identifier to `ModelVersion8` - Change the Current Model Version to the new 'Resi-Domain-Model 8' - Make sure it's added to the `RESI-DomainResources` target.

You can setup new models, migrations ahead of time but release a new 'Current Model Version' unless it's needed. If your feature is toggled off, make sure not to release with the newer model version.

2. Make required changes to your model

- Make the appropriate changes to your model.
- Run `fastlane mogenerator` to update any of the base classes.

Mogenerator Notes

- Mogenerator will create the 'machine' class and the main class if they don't exist. If they do exist it will only update the **machine** file.

If you need to add new Entities

- Give each new entity an appropriate class name like `RADListingWidget` and entity name without the prefix. EG: `ListingWidget`

Running `make mogenerator` will create new machine files in `common/RESI-Domain/RESI-Domain/src` that start with an underscore eg: `_RADListingWidget.h/m` as well as the actual classes you defined in the core data model.

- Make sure you add the new classes to the RESI-Domain target under `Source/Models/_Generated` and the main classes where appropriate.

3. Fix existing broken / deprecated tests; Add the failing upgrade unit tests

Documentation for the migration tests is outlined in [Core Data Migrations Pt 1](#)

If your change is not supported by the [light weight](#) migrations available in Core Data you must create a manual migration.

Note that for simple changes to the data model, like adding an entity or optional attribute, lightweight migrations are great. They're extremely easy to set up which is why the topic won't be brought up in this article. To find out what kind of changes are supported by lightweight migrations and which are not, take a look at the official documentation. [Objc.io Issue 4](#)

3. Add a new Mapping Model

The mapping model defines what data will be migrated from one version to another. If you are using a mapping model it must be complete, there is no inferred behavior.

- Create a new file under RESI-Domain/Source/Models/Migrations of type 'Mapping Model'.
 - Choose the source and target model. Your new model is the target.
 - Name the new file `RESI-Domain-Model-Map[source]-[target]`
 - Add the new file to the RESI-DomainResources target

The new model will be filled with the inferred model mappings where possible.

Custom Migration Policies - A worked example

The most advanced migration in the RESI code base to date is mapping model 4-5. It required custom policies to filter the duplicated bookmarked listings, searches and place the distinct bookmarked listings in RADPropertyList objects and make the connections.

When you define a custom policy, your custom object that subclasses

`NSEntityMigrationPolicy` is given a chance to turn the old `NSManagedObject` instance into a compatible `NSManagedObject`. It is passed all the context required, and the documentation for `NSEntityMigrationPolicy` highlights the gotchas.

NB: It's probably noting that calling `super` in these two methods

(`createDestinationInstancesForSourceInstance:entityMapping:manager:error:` and `createRelationshipsForDestinationInstance:entityMapping:manager:error:`) is what creates the association between the old and the new model version, not returning `YES`.

The case I'm documenting here (Model 7 to 8) needs to move three fields from RADListing to a new object containing those fields. There may also be some translations required to the fields. The new entity I've added is 'ListingPrice'.

Since the listing model is dropping two fields and gaining a relationship, we need to migrate the relationship. By default the relationship Value Expression will be blank. We need to set this to use the `ListingToListing` mapping.

The migration from 7-8 will use the same properties set on ListingToListing in 4-5.

- Custom Policy: `RADListingToListingPolicy`
- Filter Predicate : (blank)
- User Info: **Key:** modelVersion **Value:** 8

Under the `price` relationship we should add

```
FUNCTION($manager, "destinationInstancesForSourceRelationshipNamed:sourceInstances:"
```

Add your custom migration inside `RadListingToListingPolicy` within a check for version 8.

```
- (BOOL)createDestinationInstancesForSourceInstance:(NSManagedObject *)sInstance
    entityMapping:(NSEntityMapping *)mapping
    manager:(NSMigrationManager *)manager
    error:(NSError **__autoreleasing *)error
{
    NSNumber *modelVersion = [mapping.userInfo valueForKey:@"modelVersion"];
    if (modelVersion.integerValue == 5)
    {
        // existing migration version 4-5
    }
    else if (modelVersion.integerValue == 8)
    {
        // new migration for version 7-8
    }
    return [super createDestinationInstancesForSourceInstance:sInstance entityMapping:
}
```

Follow the same pattern in

`createRelationshipsForDestinationInstance:entityMapping:manager:error:` if your migration needs a relationship added.

- new entities don't need an entity mapping

Domain test /fixtures /

```
//on iOS 6 - upgrade the V6 DB to V7. Disable network, disable app delegate method to 'clear
inactive bookmarks' Commit DB to
```

Add Migration Spec.

copy into app, disable code that deletes inactive listings







正常的三层结构是这样的

Presentation



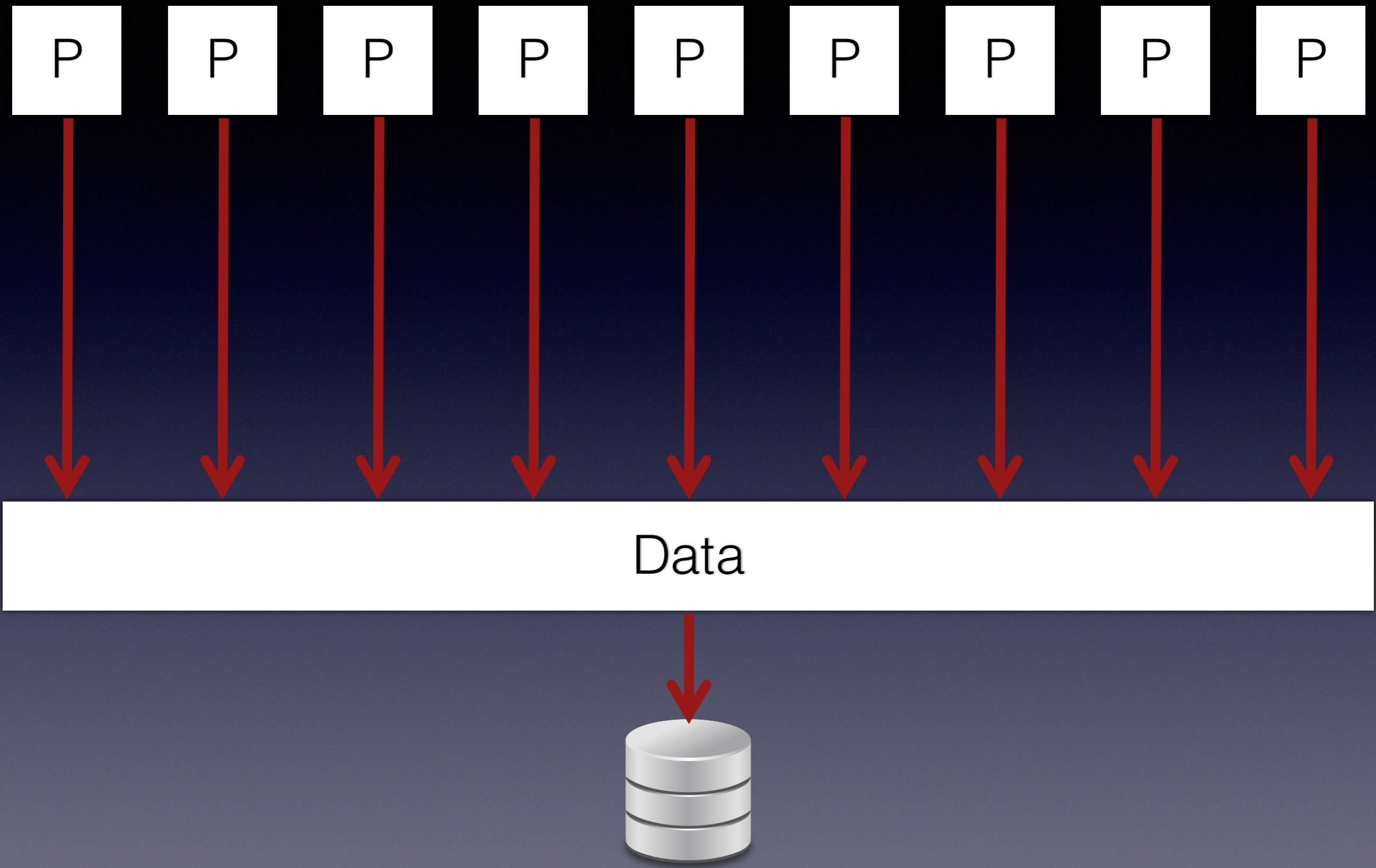
Domain



Data



而我们的系统呢？



方式一：ViewController直接读写数据

```

- (instancetype)initWithManagedObjectContext:(NSManagedObjectContext *)context
{
    self = [super init];
    if (self)
    {
        _managedObjectContext = context;
        [self configureResultsControllerForOpenTimes];
    }

    return self;
}

- (void)configureResultsControllerForOpenTimes
{
    AssertWithMessage(self.managedObjectContext, @"We shouldn't get to here before the MOC has been created");

    NSDate *todayDate = [NSDate date];
    NSFetchedRequest *fetchRequest = [NSFetchedRequest fetchRequestForSavedPropertyEventsOnDate:todayDate
                                                inManagedObjectContext:self.managedObjectContext];

    self.fetchResultsController = [[NSFetchedResultsController alloc]
    return [self.fetchResultsController.fetchedObjects
            filteredArrayUsingPredicate:predicate];
}

- (NSArray *)getUpcomingEvents
{
    [NSFetchedResultsController deleteCacheWithName:[NSStringFromClass(self.class)]];

    NSError *error;
    if (![self.fetchResultsController performFetch:&error])
    {
        [NSException raise:NSInternalInconsistencyException format:@"fetch error: %@", [error userInfo]];
    }

    NSPredicate *predicate = [NSPredicate predicateWithFormat:@"endDateTime > %@", [NSDate dateWithTimeIntervalSinceNow:-
    kOFITodayViewEventExpiredTimeInterval]];
    return [self.fetchResultsController.fetchedObjects filteredArrayUsingPredicate:predicate];
}

- (BOOL)hasSavedProperties
{
    return [RADPropertyList activeBookmarkedListingsInManagedObjectContext:self.managedObjectContext].listings.count > 0;
}

```

方式二：ViewController作为Delegate存在

```

- (void)configureFetchedResultsController
{
    AssertWithMessage(self.managedObjectContext, @"We shouldn't get to here before the MOC has been created");

    NSFetchedResultsController *fetchRequest = [self fetchRequestForSavedPropertyEventsOnDate:self.todayDate inManagedObjectContext:self.managedObjectContext];
    fetchRequest.entity = [NSEntityDescription entityForName:[RADEvent entityName] inManagedObjectContext:self.managedObjectContext];
    fetchRequest.fetchBatchSize = 20;
    fetchRequest.sortDescriptors = @[[[NSSortDescriptor alloc] initWithKey:@"startDate" ascending:YES]];
    fetchRequest.predicate = [NSPredicate predicateWithFormat:@"scheduled == YES AND listing != nil"];

    self.fetchedResultsController = [[NSFetchedResultsController alloc] initWithFetchRequest:fetchRequest
                                                                    managedObjectContext:self.managedObjectContext
                                                                    sectionNameKeyPath:nil
                                                                    cacheName:NSSStringFromClass(self.class)];

    self.fetchedResultsController.delegate = self;
    [self performFetch];
}

- (NSFetchRequest *)fetchRequestForSavedPropertyEventsOnDate:(NSDate *)date inManagedObjectContext:(NSManagedObjectContext *)managedObjectContext
{

```

#pragma mark – NSFetchedResultsControllerDelegate

```

- (void)controllerDidChangeContent:(NSFetchedResultsController *)controller
{
    [self animateDataChange];
}

```

```

    fetchRequest.predicate = [NSPredicate predicateWithFormat:@"scheduled == %@ AND listing != nil AND startDate >= %@ AND startDate <= %@",
        @YES, startOfDate, startOfNextDate];

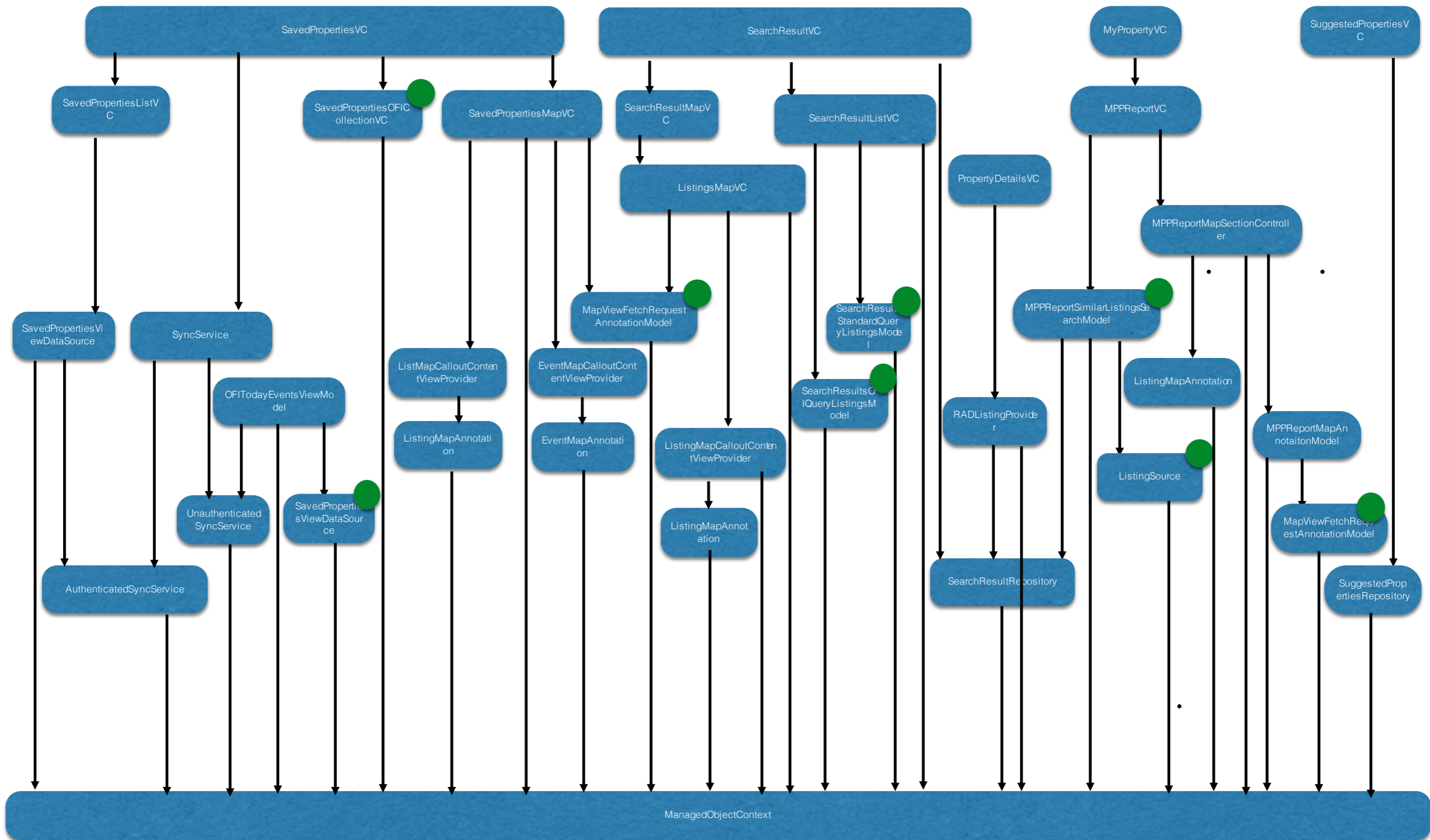
    return fetchRequest;
}

#pragma mark – NSFetchedResultsController

- (void)performFetch
{
    [NSFetchedResultsController deleteCacheWithName:NSSStringFromClass(self.class)];

    NSError *error;
    if (![self.fetchedResultsController performFetch:&error])
    {
        [NSException raise:NSInternalInconsistencyException format:@"Unresolved fetchedResultsController fetch error: %@", [error userInfo]];
    }
}

```



40+ NSManagedObjects



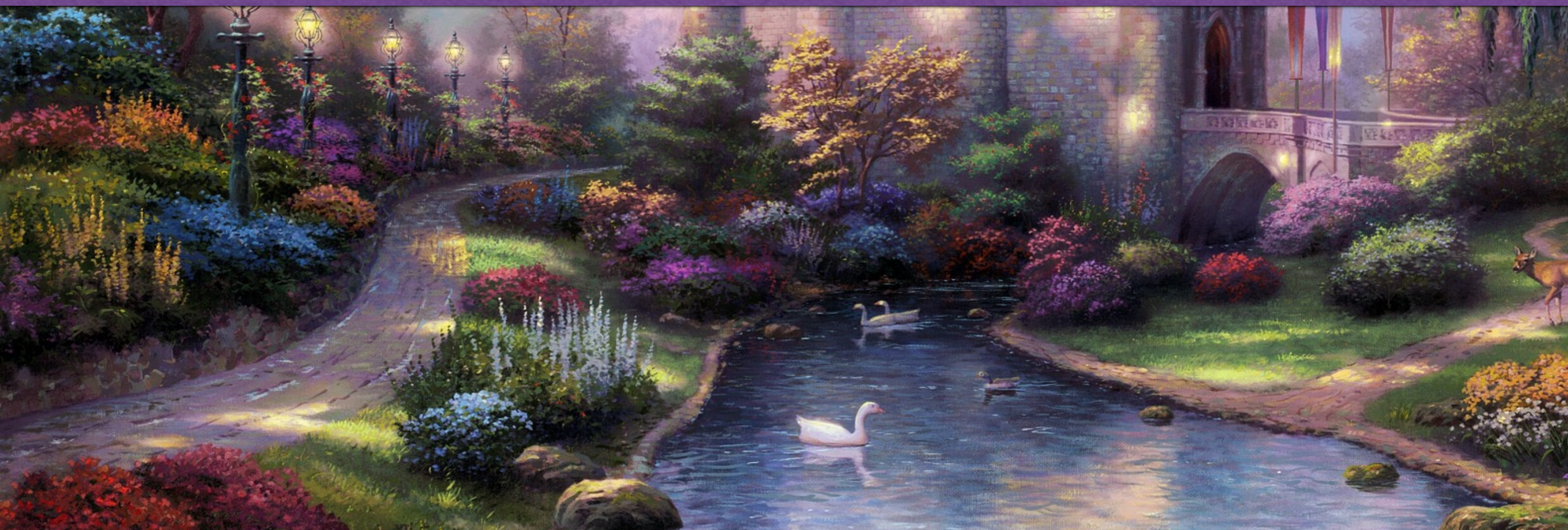


干脆从头再来吧





理想很丰满 现实很骨感



长时间无法交付

范围失去控制



Elsa, do you wanna rewrite the app?



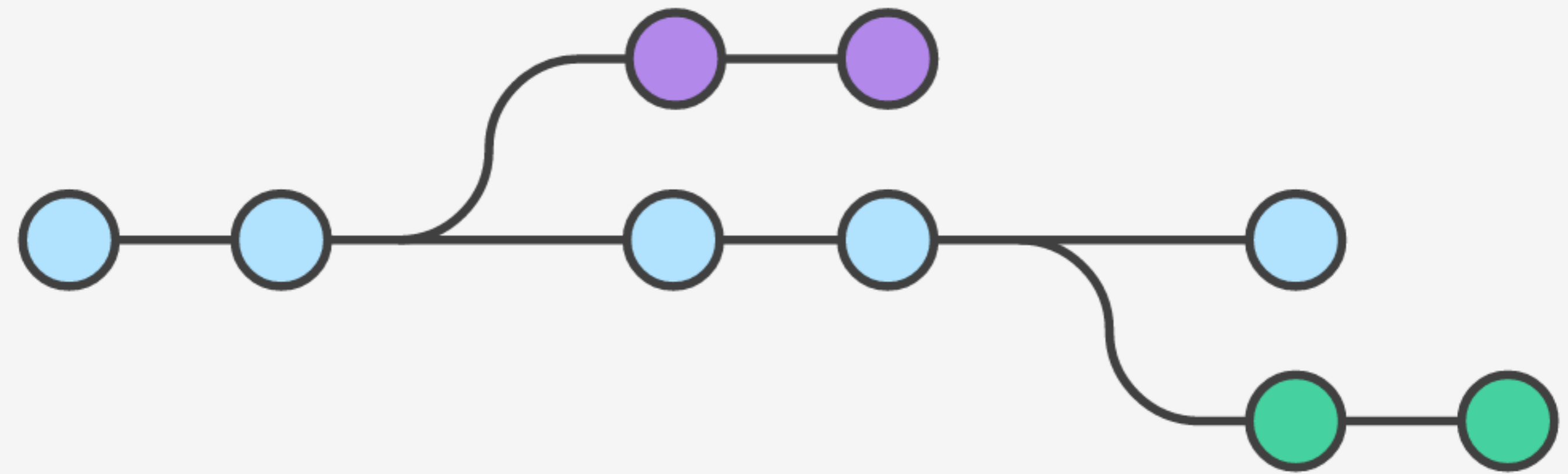
Go away, Anna



Ok, bye

~~重寫~~

特性分支？







LAGOS TO
IBADAN
NO FEES

LAGOS TO
IBADAN

LAGOS TO
IBADAN

BOJURE

ISE OLUKA N
+

● HOLD ?

23. A single CI instance for all teams new

24. Big Data envy new

25. Gitflow

We firmly believe that long-lived version-control branches harm valuable engineering practices such as continuous integration, and this belief underlies our dislike for **Gitflow**. We love the flexibility of Git underneath but abhor tools that encourage bad engineering practices. Very short-lived branches hurt less, but most teams we see using Gitflow feel empowered to abuse its branch-heavy workflow, which encourages late integration (therefore discouraging true continuous integration).

我们想把所有的事情都放到master上做

~~特性分支~~



抽象分支 (Branch by abstraction)

Branch by abstraction is a technique for making large-scale changes to a system without disrupting its operations.

<http://martinfowler.com/bliki/BranchByAbstraction.html>

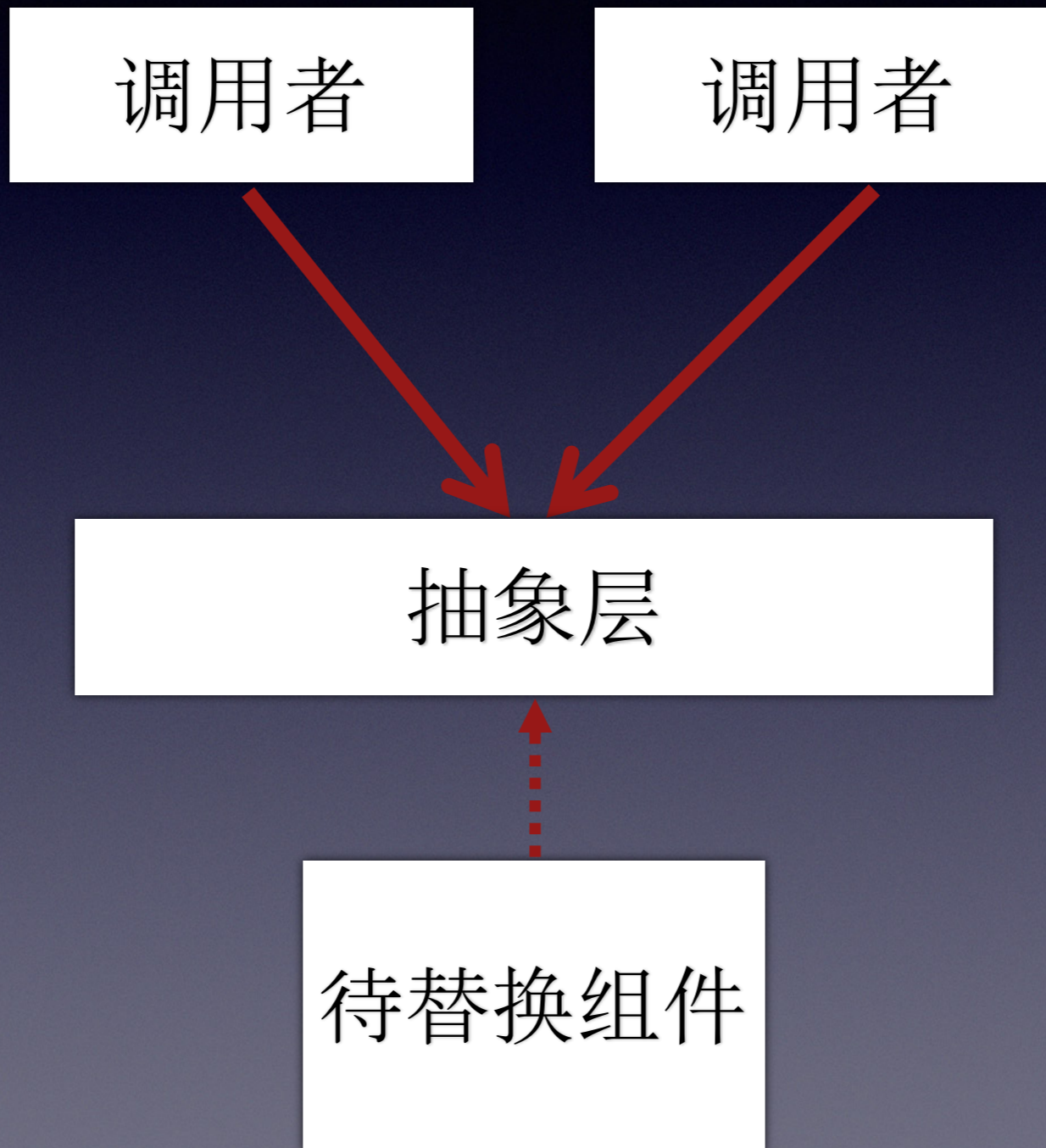
调用者

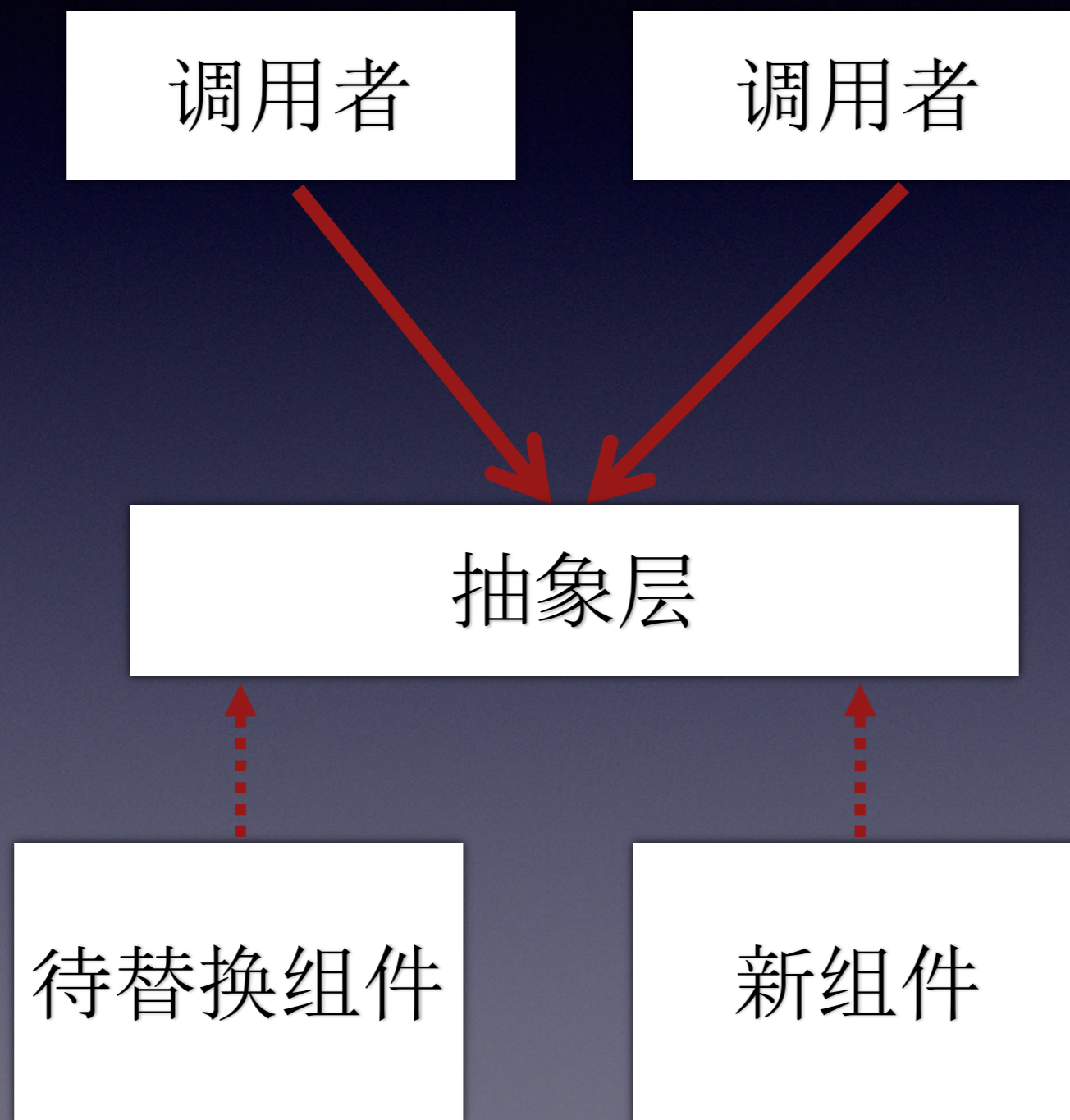
调用者

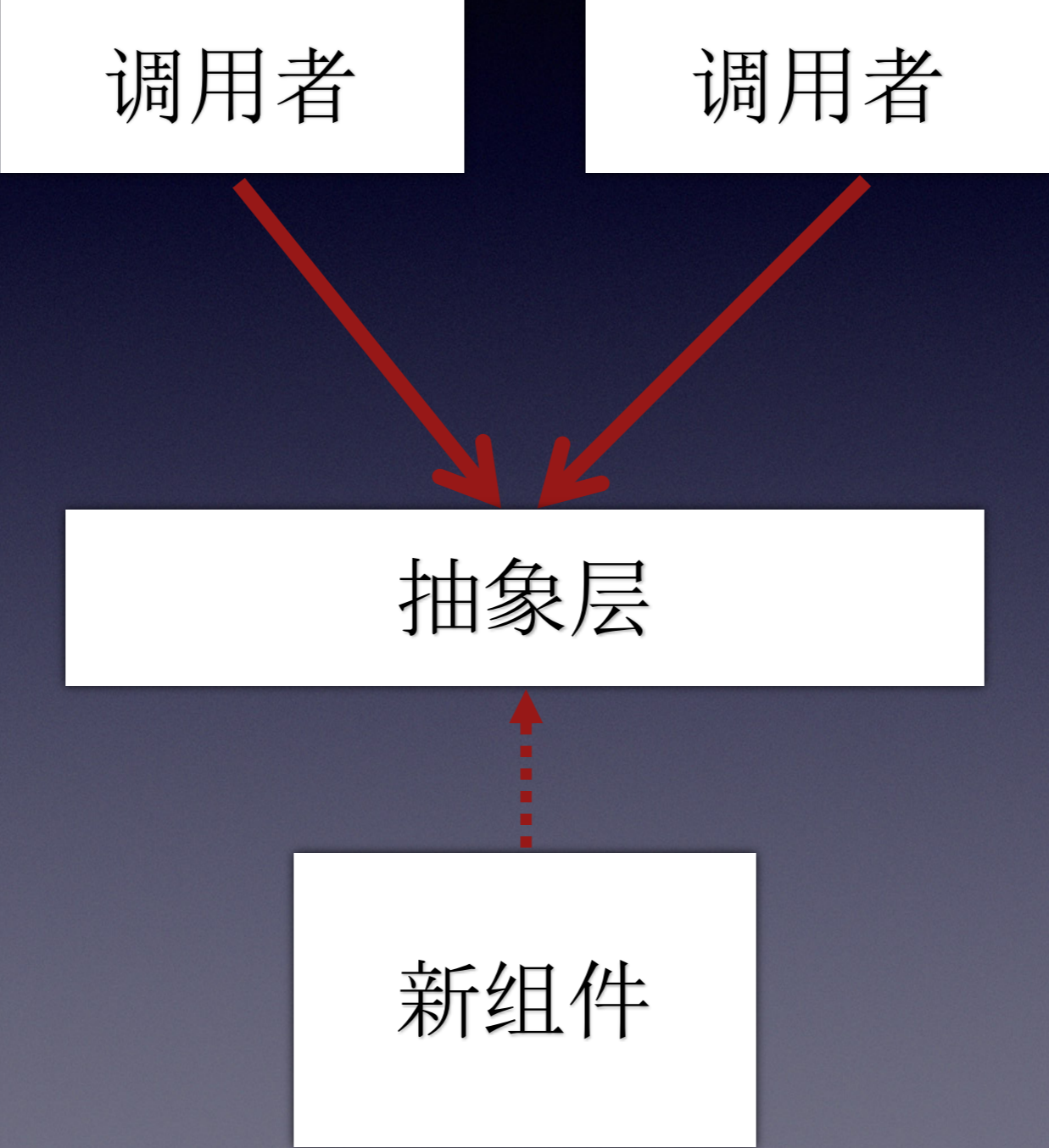
待替换组件

```
graph TD; A[调用者] --> C[待替换组件]; B[调用者] --> C;
```

The diagram illustrates a dependency injection or component replacement scenario. Two separate boxes at the top, both labeled '调用者' (Caller), have red arrows pointing downwards to a single box at the bottom labeled '待替换组件' (Component to be replaced). This indicates that both callers are dependent on the component, and the component is the target of a replacement operation.







现有功能不受影响

每次提交均可合并到主干

用单元测试和集成测试验证新组件

特性开关

方案1: GCC_PREPROCESSOR_DEFINITIONS

```
#ifndef INTERNAL_TARGET
#define isInternalTarget YES
#else
#define isInternalTarget NO
#endif
```

```
@implementation REAToggle
```

```
+ (BOOL)shouldDisplayNewSearchResultsScreen
{
    return isInternalTarget;
}
```

所有人都基于主干开发

用户看不到未完成的功能

方案2: NSUserDefaults

[← Back](#)

REA Toggles

Let it go, let it go



Can't hold it back anymore



Let it go, let it go



Switch to Realm and slam the door



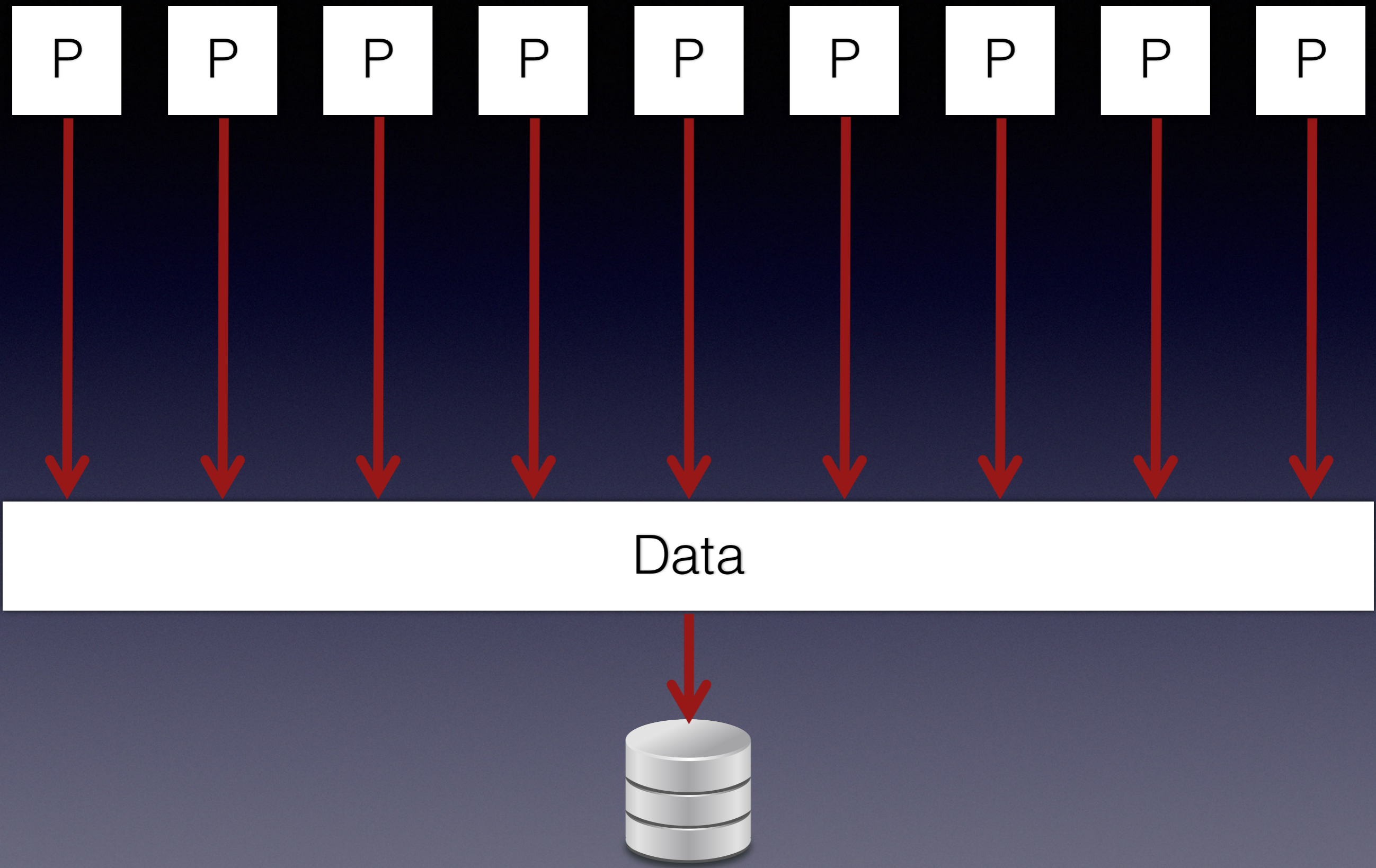
方案3: 调用后台服务

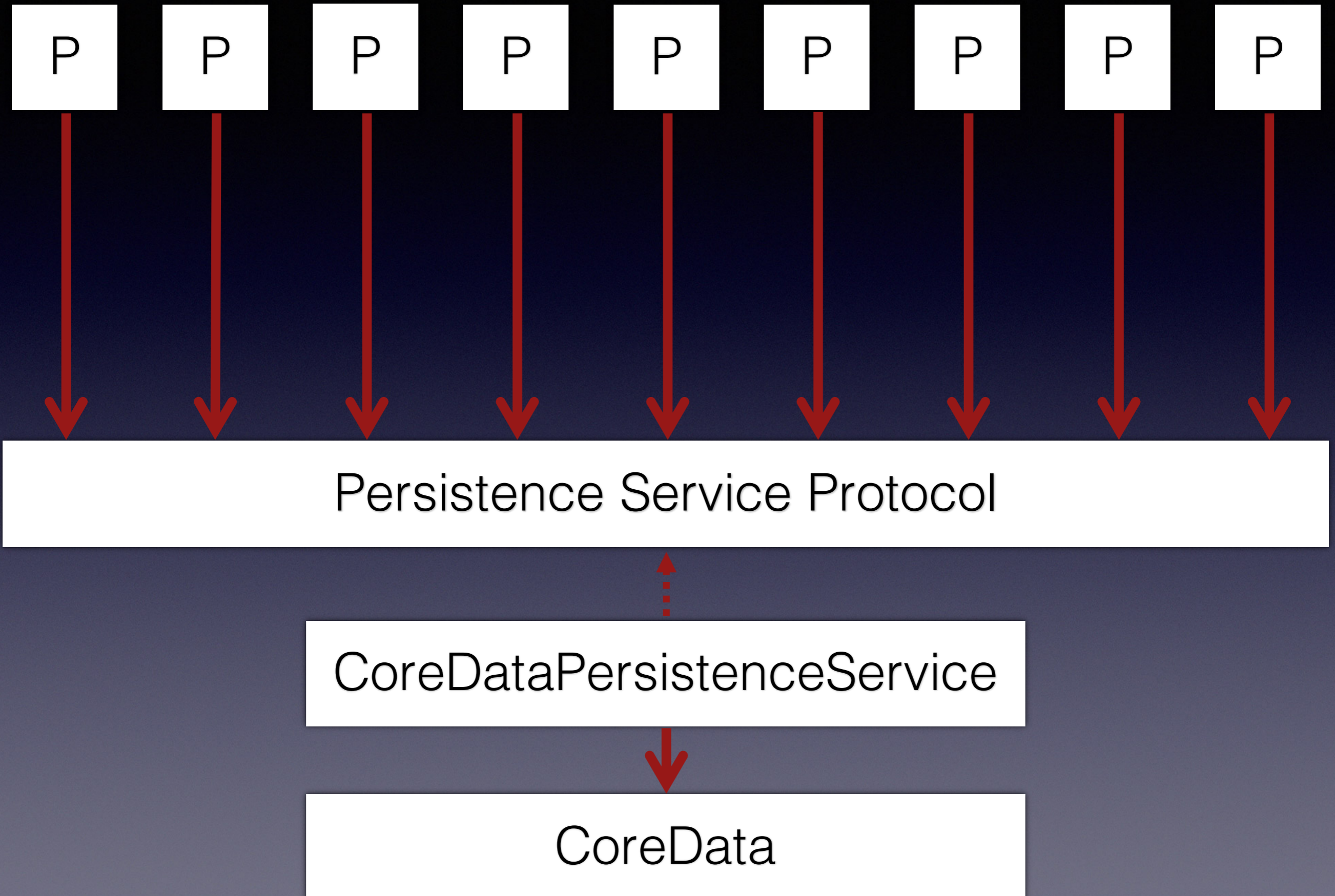
方案4: A/B测试框架

抽象分支 + 特性开关



建立数据访问层





```
@protocol REAPersistenceService<NSObject>
```

```
- (BOOL)shouldDoMigration;
```

```
- (void)migrateWithCompletion:(void (^)(BOOL success))completion;
```

```
- (void)setupDB;
```

```
- (void)flushAndSave;
```

```
- (void)reset;
```

```
- (void)clearInactiveBookmarks;
```

```
- (NSSet *)allSavedProperties;
```

```
- (NSArray *)listingsWithSource:(NSArray *)source;
```

方式一：ViewController直接读写数据

```

- (instancetype)initWithManagedObjectContext:(NSManagedObjectContext *)context
{
    self = [super init];
    if (self)
    {
        _managedObjectContext = context;
        [self configureResultsControllerForOpenTimes];
    }

    return self;
}

- (void)configureResultsControllerForOpenTimes
{
    AssertWithMessage(self.managedObjectContext, @"We shouldn't get to here before the MOC has been created");

    NSDate *todayDate = [NSDate date];
    NSFetchRequest *fetchRequest = [NSFetchRequest fetchRequestForSavedPropertyEventsOnDate:todayDate
                                     inManagedObjectContext:self.managedObjectContext];

    self.fetchedResultsController = [[NSFetchedResultsController alloc]
                                     initWithFetchRequest:fetchRequest
                                     managedObjectContext:self.managedObjectContext
                                     sectionNameKeyPath:@"timeSpan"
                                     cacheName:NSStringFromClass(self.class)];
}

- (NSArray *)getUpcomingEvents
{
    [NSFetchedResultsController deleteCacheWithName:NSStringFromClass(self.class)];

    NSError *error;
    if (![self.fetchedResultsController performFetch:&error])
    {
        [NSEException raise:[NSInternalInconsistencyException format:@"fetch error: %@", [error userInfo]]];
    }

    NSPredicate *predicate = [NSPredicate predicateWithFormat:@"endDateTime > %@", [NSDate dateWithTimeIntervalSinceNow:-
    kOFITodayViewEventExpiredTimeInterval]];
    return [self.fetchedResultsController.fetchedObjects filteredArrayUsingPredicate:predicate];
}

- (BOOL)hasSavedProperties
{
    return [RADPropertyList activeBookmarkedListingsInManagedObjectContext:self.managedObjectContext].listings.count > 0;
}

```

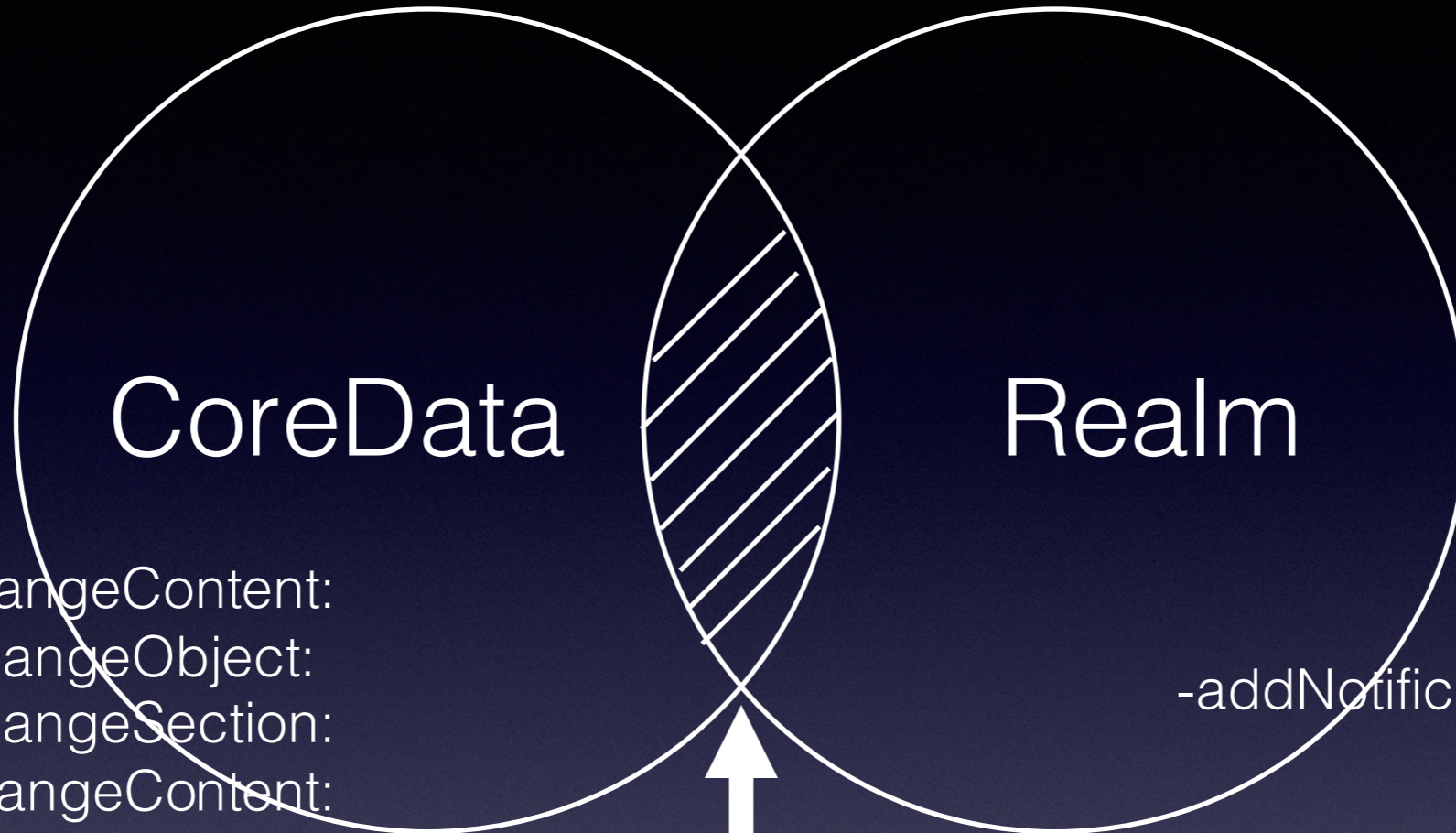
```
- (NSArray *)getUpcomingEvents  
{  
    return [self.persistenceService getTodayUpcomingEvents];  
}
```


方式二：ViewController作为Delegate存在

- controllerWillChangeContent:
- controller:didChangeObject:
- controller:didChangeSection:
- controllerDidChangeContent:

VS

-addNotificationBlock:

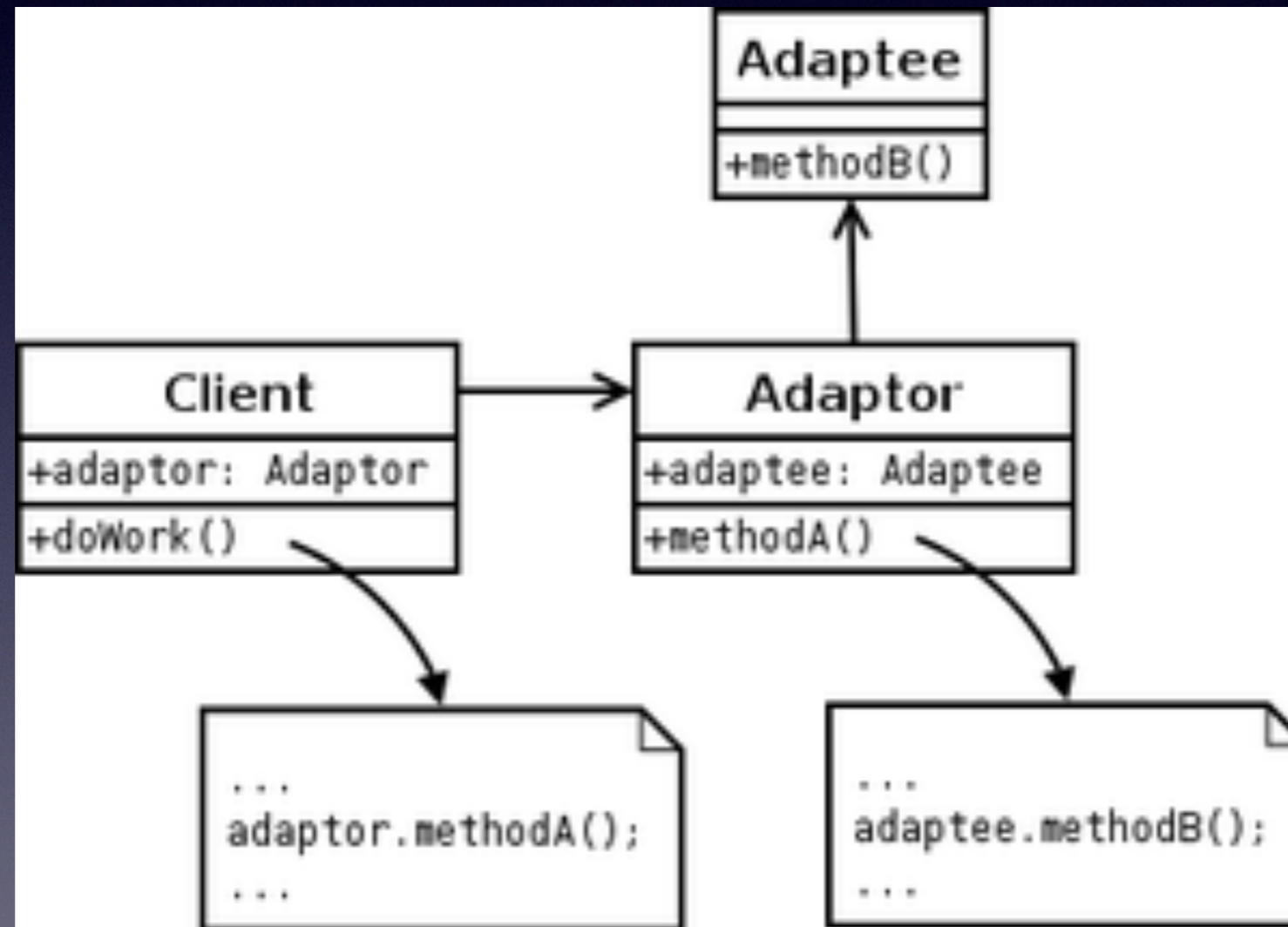


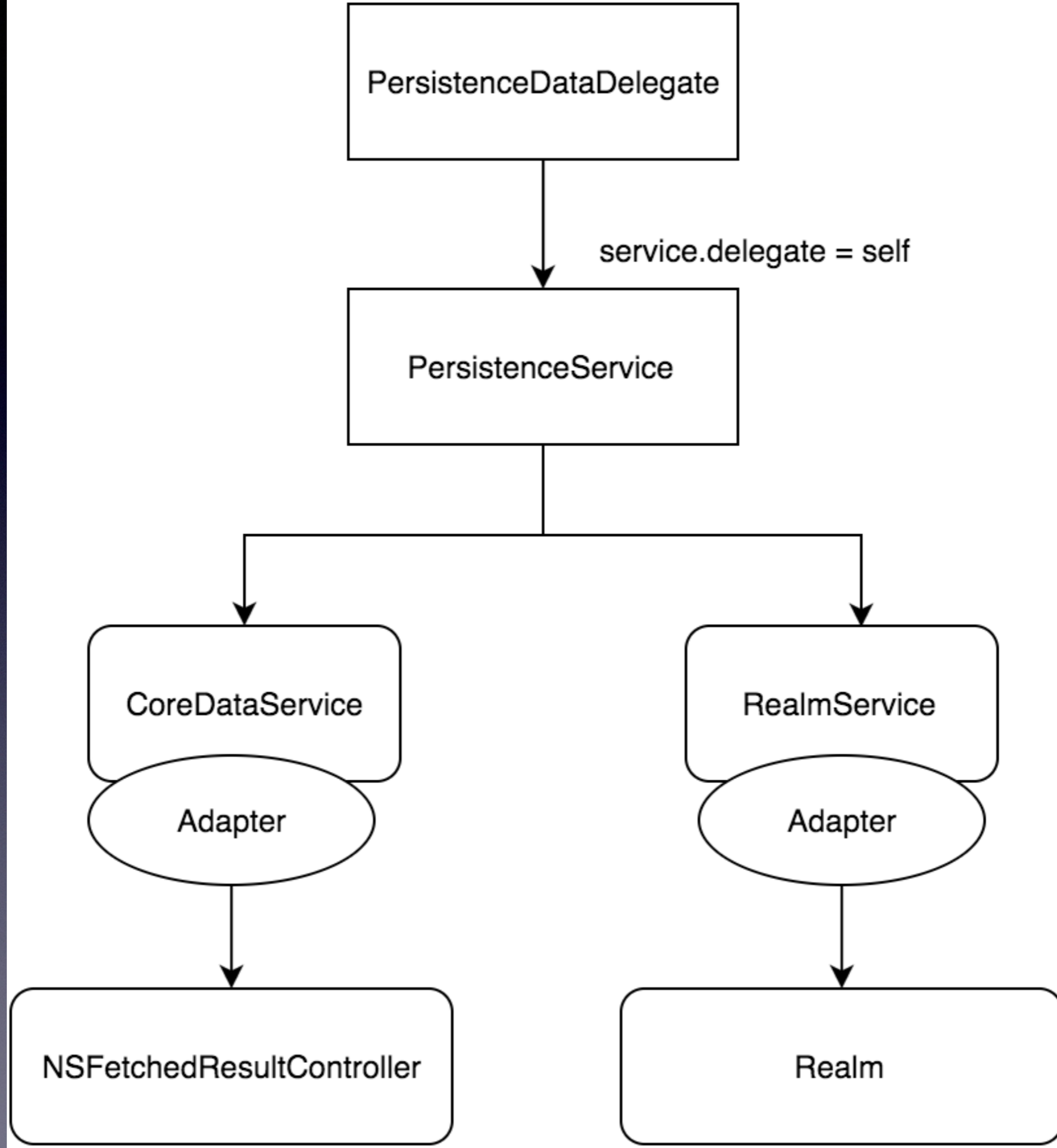
- controllerWillChangeContent:
- controller:didChangeObject:
- controller:didChangeSection:
- controllerDidChangeContent:

-addNotificationBlock:

- contentDidChange:(id)content

Adapter模式








建立数据访问层



建立数据访问层



为数据对象提取协议

App



id<ListingProtocol>




OldListing: NSManagedObject



NewListing: RLMObject



建立数据访问层

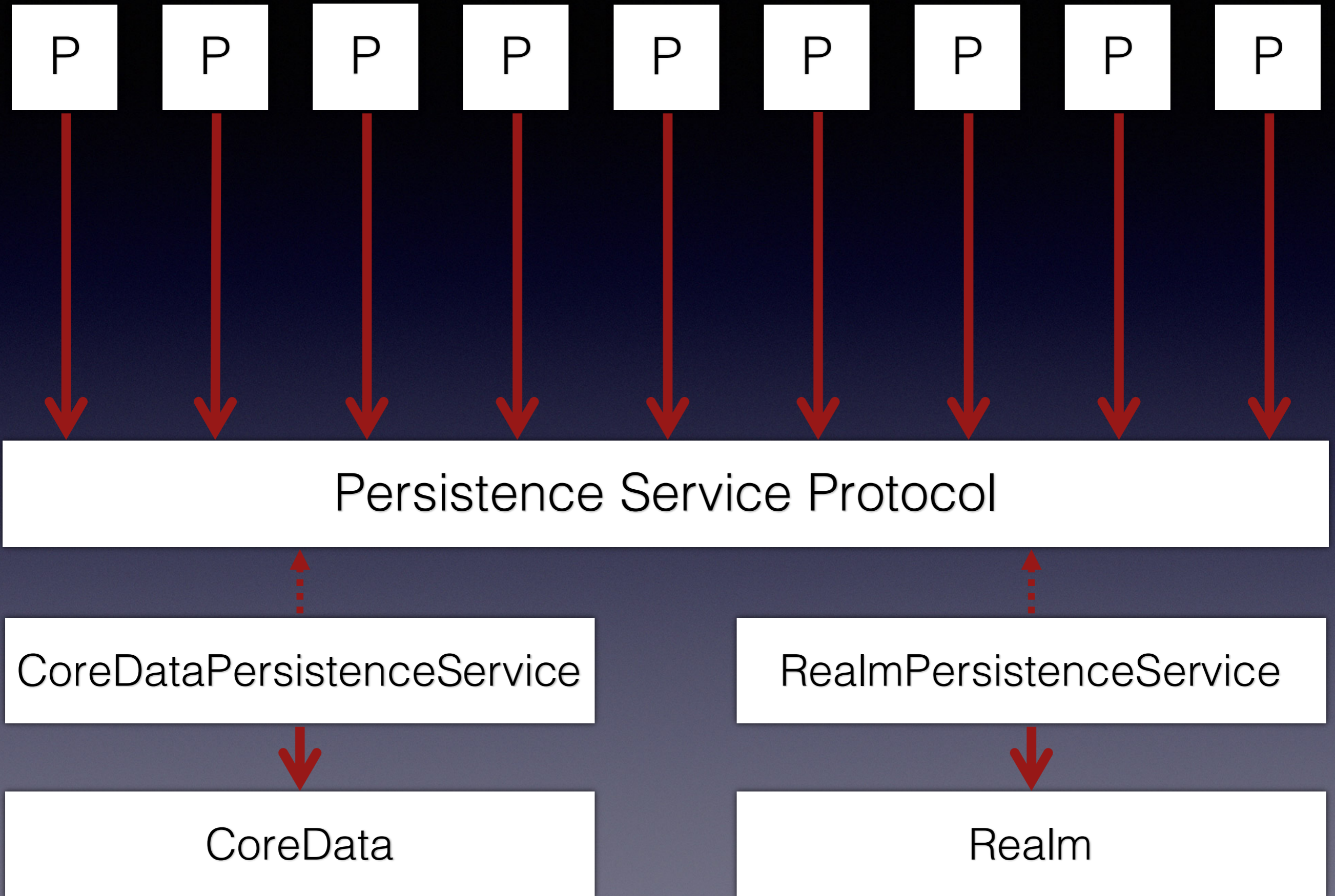


为数据对象提取协议

建立数据访问层

为数据对象提取协议

新的持久化服务



```
@implementation REAPersistenceServiceFactory
```

```
+ (id<REAPersistenceService>)service
```

```
{
```

```
    if ([REAToggle isUsingCoreData])
```

```
    {
```

```
        return [REACoreDataPersistenceService sharedInstance];
```

```
    }
```

```
    else
```

```
    {
```

```
        return [REARealmPersistenceService sharedInstance];
```

```
    }
```

```
}
```

```
@end
```



当心坑洞

不支持级联删除

不支持多态

难以理解的反向关联

建立数据访问层

为数据对象提取协议

新的持久化服务

建立数据访问层

为数据对象提取协议

新的持久化服务

打开开关，
内测

建立数据访问层

为数据对象
提取协议

3. New
persistence
service

打开开关,
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数据迁移

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为数据对象提取协议

新的持久化服务

打开开关，内测

数据迁移

后续清理

建立数据访问层

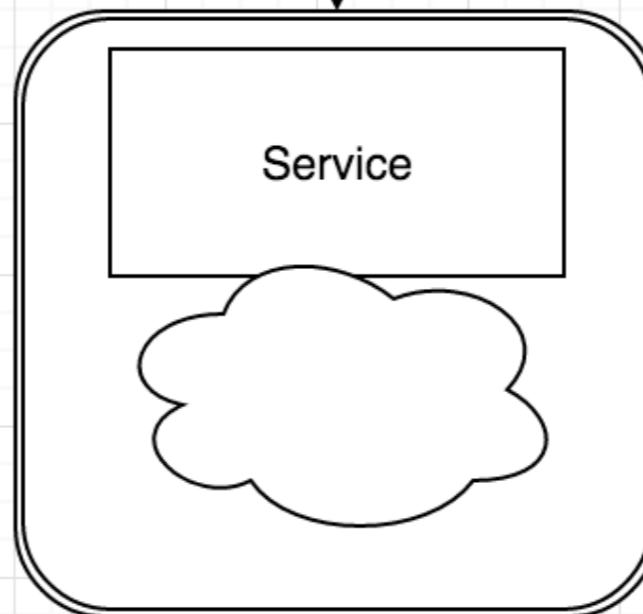
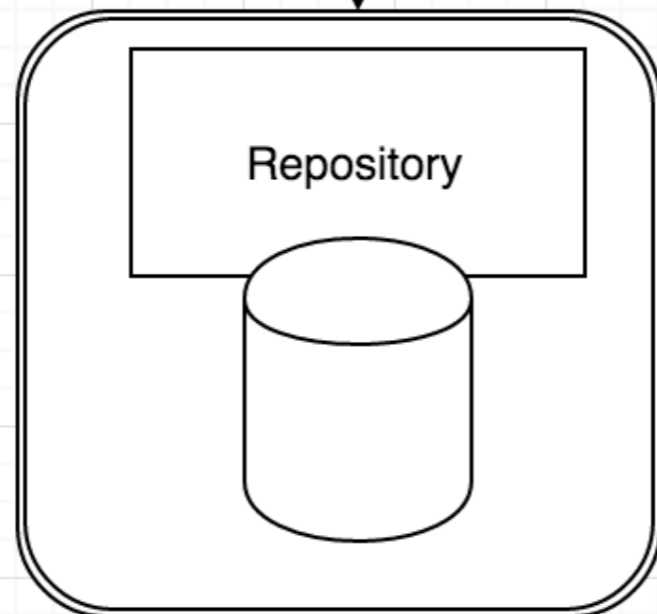
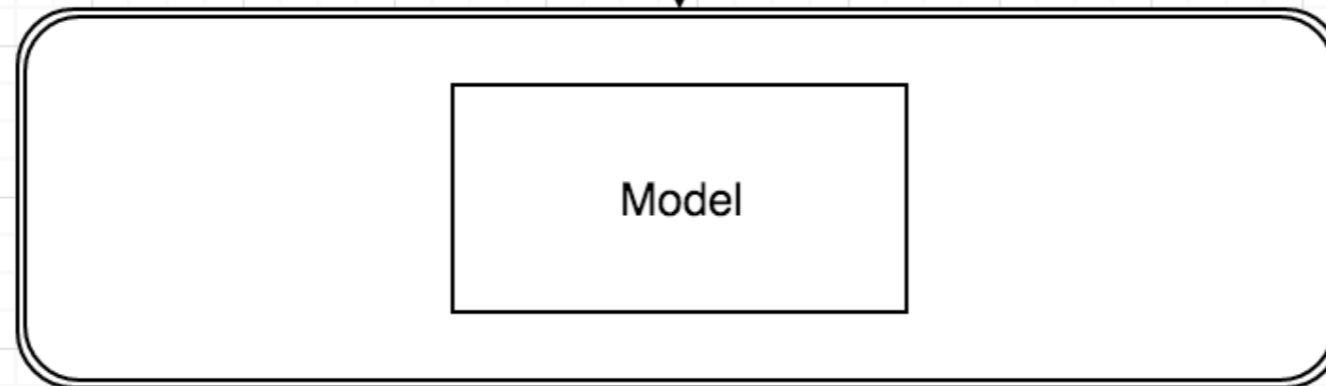
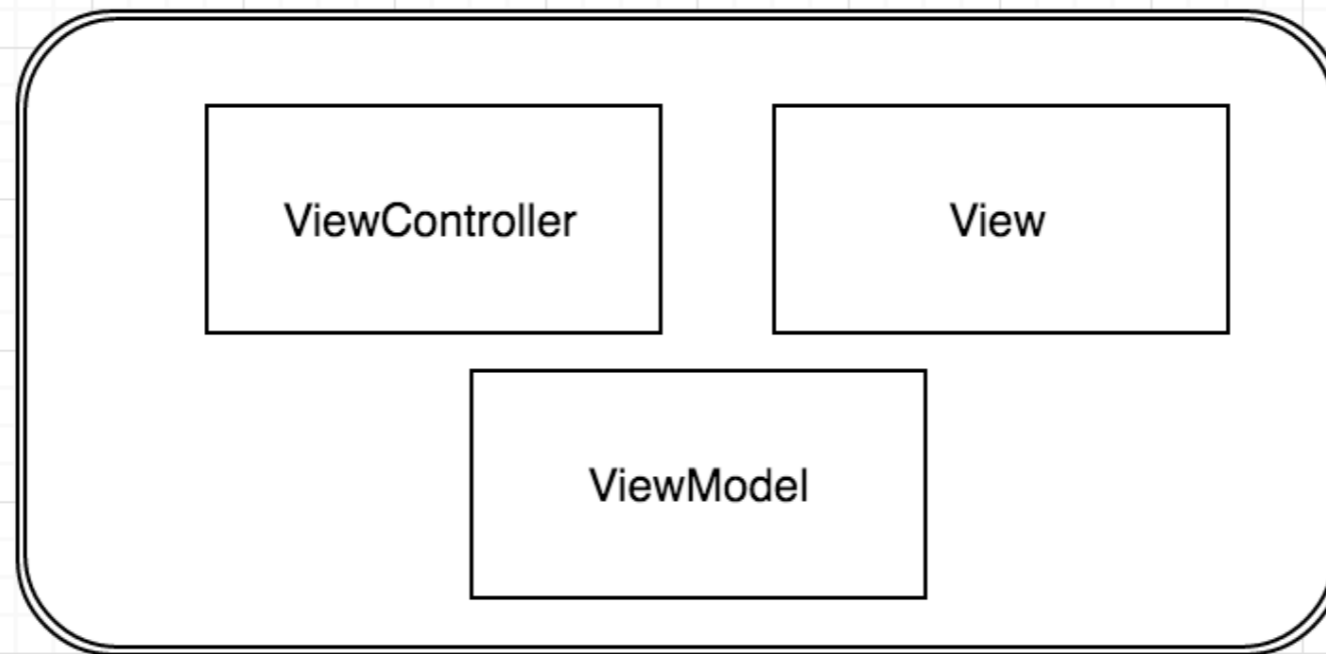
为数据对象提取协议

新的持久化服务

打开开关，内测

数据迁移

后续清理



persistence layer - RESISearchResultsOFIQueryListingsModel #1156

 **Merged** jacky-li merged 17 commits into `master` from `feature/persistence-layer-fetchedresultcontrollerdelegate` on Jan 25

 Conversation 26

 Commits 17

 Files changed 24



jacky-li commented on Jan 23

Owner



Conceal, don't feel

Put on a show

Make one wrong move everyone will know

Elsa's voice kept ringing through my mind when I was doing this refactoring.

That's one small step for a man, one giant leap for the codebase.

Labels

None yet

Milestone

No milestone

Assignee

No one—assign

persistence layer - RESISearchResultsOFIQueryListingsModel #1156

Merged jacky-li merged 17 commits into master from feature/persistence-layer-fetchedresultcontrollerdelegate

2016.1.2
5

Conversation 26 Commits 17 Files changed 24

jacky-li commented on Jan 23

Owner

*Conceal, don't feel
Put on a show
Make one wrong move everyone will know*

Elsa's voice kept ringing through my mind when I was doing this refactoring.

Labels

None yet

Milestone

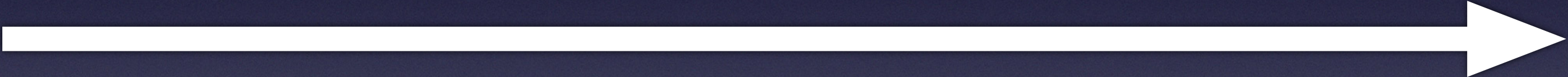
No milestone

Assignee

No one — assign

这是我个人的一小步，却是代码库的一大步

合并了100+ Pull Requests





fears that once controlled me can't get to me at all





要勇敢



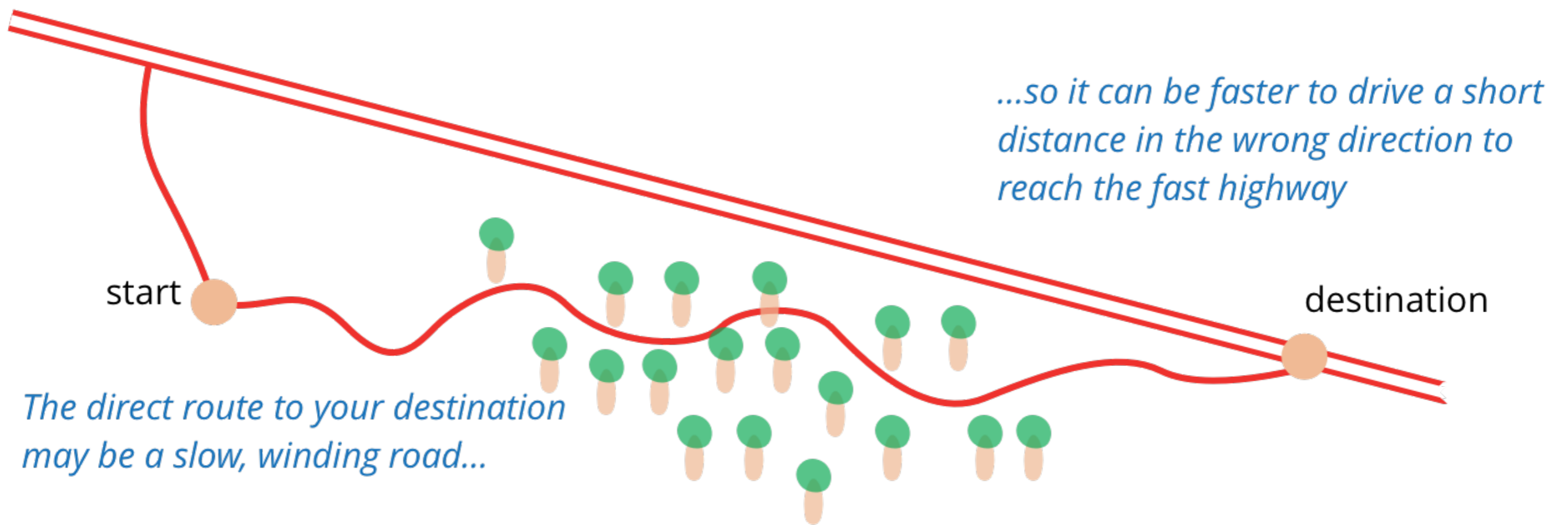


**Only
Losers
Drop
Litter**



CANTERBURY
CITY COUNCIL





也要谨慎



For the First Time in Forever
By Kristen Bell and Idina Menzel
www.youtube.com/OttoDadYT

make one wrong move everyone will know

正确的重构手法+大量的测试覆盖

抽象分支+特性开关

设计会过时，但是设计原则不会



CoreData never bother me anyway

Thank you!