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| Skight I-Tech Entry Test |
| Technical Exmination |
| The document is about tests which are requested and actually are used in Skight Inc. All content are confidential and copyright belong to Skight I-Tech Inc. |
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# Source Code Control (Git)

* 1. Please get this Entry Exmination itself from our Git server:

1. Git Clone [git@github.com:SkightTeam/EntryTest](mailto:git@github.com:SkightTeam/EntryTest) or directly download from https://github.com/SkightTeam/EntryTest/archive/master.zip
2. Finish your answers following in your local machine.
3. Create a branch by your name.
4. Commit and push your branch to server above

# Test Driven Development( TDD, BDD)

## Test Coverage

* 1. Please write tests which are full cover all code statement( every line of code have been executed)

**Find test item in EntryTest project: EntryTest.EntryTestItems. T1\_1To2.cs**

* 1. Please write tests which are full cover all code paths ( every route of code have been executed)

**Find test item in EntryTest project: EntryTest.EntryTestItems. T1\_1To2.cs**

## Mock (Rhnio Mock)

* 1. Use Rhnio Mock to test a class which depends on an interface without implementation.

**Find test item in EntryTest project: EntryTest.EntryTestItems. T1\_3.cs**

# Patterns

## State Pattern

* 1. Complete Enrollment State code to make test passed.

**Find test items in EntryTest project: folder EntryTest.EntryTestItems.T2\_1**

## DI

# ORMapping(nHibernate)

* 1. (Inheritance Mapping)For the given classes, please choose a strategy to map to database.
* Choose strategy like class-per-table etc.
* Write out table schemas
* Describe how classes map to table , it is better if you can use nHibernate (<http://nhforge.org/> ) even Fluent nHibernate (<https://github.com/jagregory/fluent-nhibernate/wiki/Getting-started> ) to describe mapping
* **Find test items in EntryTest project: folder EntryTest.EntryTestItems.T3\_1**
  1. (Decorator Mapping)For the given classes, please choose a strategy to map to database.

//Not done. Todo:

# Lambda Expression

* 1. Using Lambda Expression to make tests pass.

**Find test items in EntryTest project: folder EntryTest.EntryTestItems.T4\_1**

# Extension

* 1. Please doesn’t change interface itself nor create any implementation for interface, instead using extension to make tests passed.

**Find test items in EntryTest project: folder EntryTest.EntryTestItems.T5\_1**

# Database (SQL)

* 1. For table below,
* Write a SQL query to find all company which have more than 100 staffs.
* Write a SQL query to find

create table [Staff] (

Id INT IDENTITY NOT NULL,

Salary DECIMAL(19,5) null,

Name NVARCHAR(255) null,

SocialNumber NVARCHAR(255) null,

Company NVARCHAR(255) null,

primary key (Id)

)