

# TRIP PLANNING APPLICATION

**Team #3 :**

**Yiyi Zhou** [Zhou.yiy@husky.neu.edu](mailto:Zhou.yiy@husky.neu.edu)

**Yang Li** [Li.yang5@husky.neu.edu](mailto:Li.yang5@husky.neu.edu)

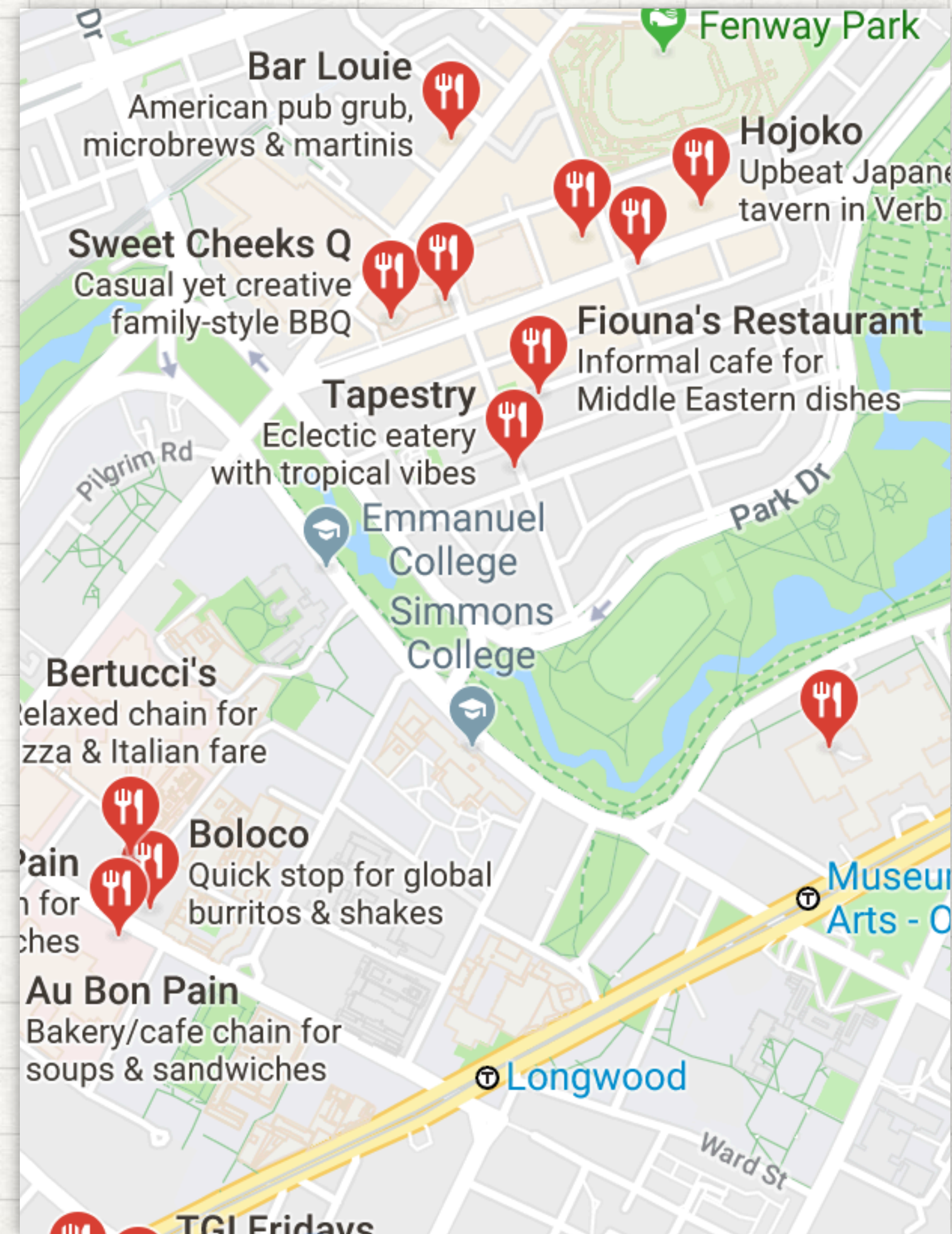
**Zheng Liu** [Liu.zheng4@husky.neu.edu](mailto:Liu.zheng4@husky.neu.edu)

**GitHub:** <https://github.com/chesszhou/CSYE7200-Project-Team-3>



# INTRODUCTION

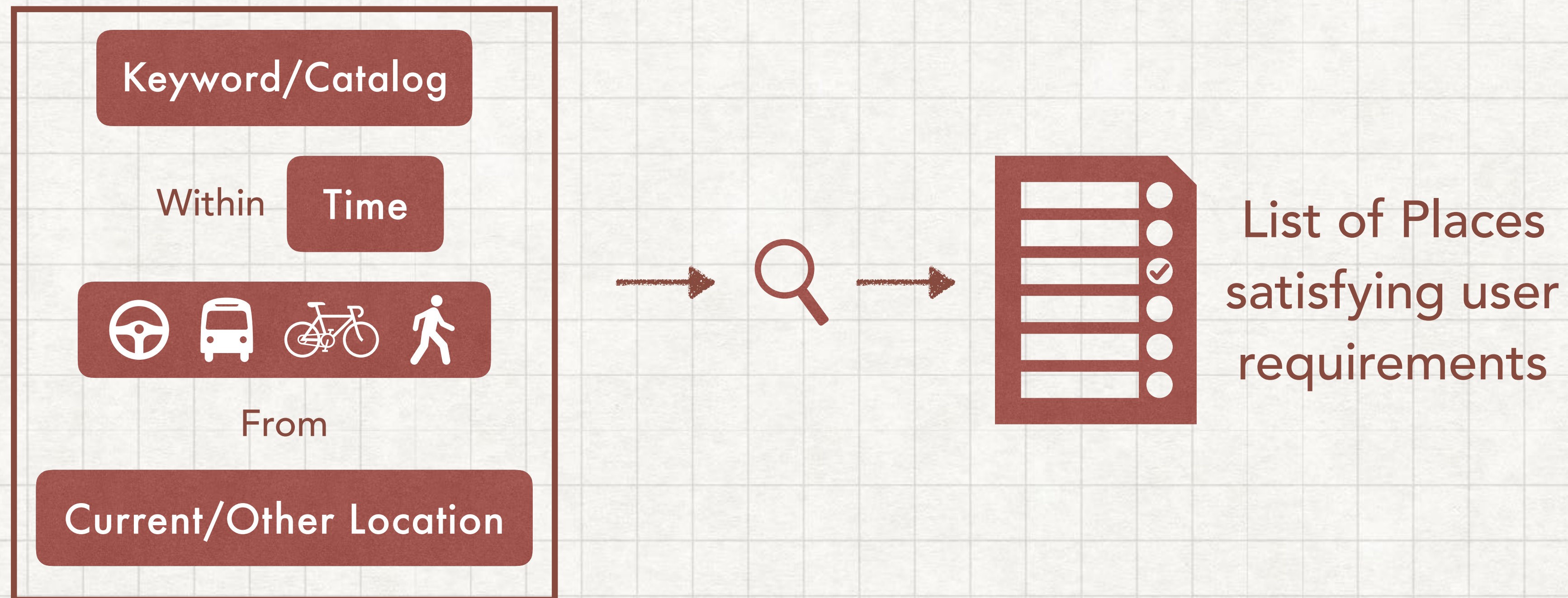
- Trip planning advisor
- Web app based on Play framework with Scala
- Data resolve & calculations
- Database, email, etc





# USE CASES/USER STORIES

## USE CASE 1

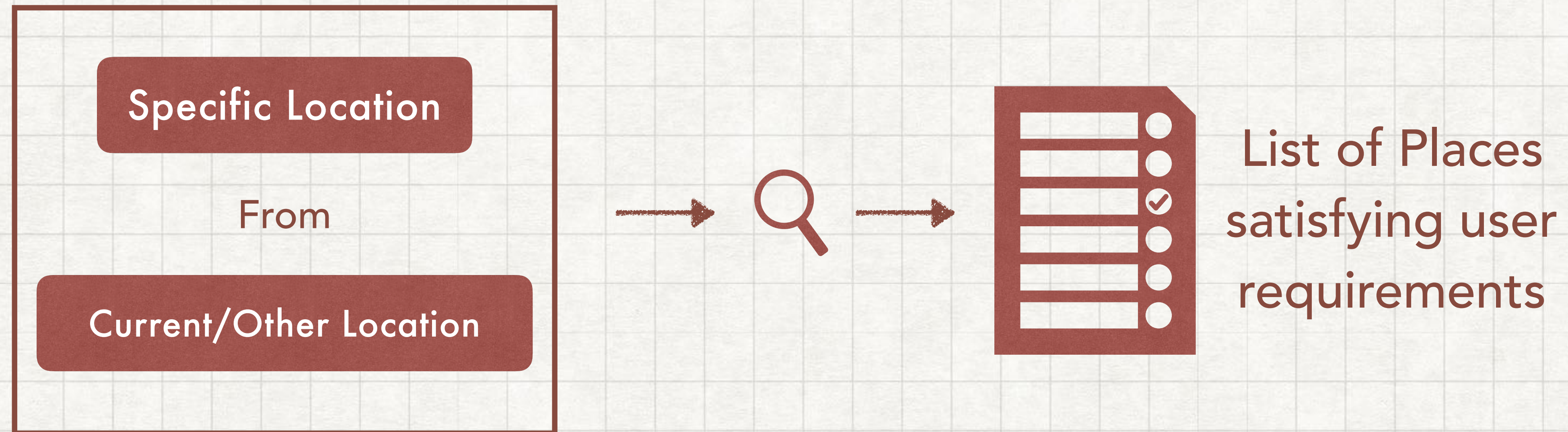


As a user, I want to input a keyword that I want to go with a time slot and transport, so that I can know what are the specific destinations I can get by various modes of transport within various time periods



# USE CASES/USER STORIES

## USE CASE 2



As a user, I want to input a specific destination/address so that I can know how long will it take from a given place to a destination via various modes of transport



*Demo*



# ACCEPTANCE CRITERIA

- 90% of the elements will be executed and finished within 10 seconds
- The return results based on user request and application's filters will present 5 best results (if exists)





# PLAY FRAMEWORK

## PLAY JSON LIBRARY

```
import play.api.libs.json._

val result = scala.io.Source.fromURL(url).mkString;

//get length of list
val jsonResult: JsValue = Json.parse(result)
val resultArray = (jsonResult \ "results").as[List[JsValue]]
var resultNum = resultArray.length;

//get all place id
val places = new Array[Place](resultNum)
for(i <- 0 to (resultNum-1)){

    val id = (jsonResult \ "results" \ i \ "place_id").get.toString();
    val category = (jsonResult \ "results" \ i \ "types" \ 0).get.toString();
    val name = (jsonResult \ "results" \ i \ "name").get.toString();
    val address = (jsonResult \ "results" \ i \ "formatted_address").get.toString();
    val location_org = (jsonResult \ "results" \ i \ "geometry" \ "location").get.toString();

    ...
}
```



# PLAY FRAMEWORK

## HANDLING FORM

### ◆ Input Helper

```
@import helper._

...


```

### ◆ Form Validation

```
val searchForm_case1: Form[SearchForm_case1] = Form(
  mapping(
    "keyword" -> nonEmptyText,
    "travelModel" -> nonEmptyText,
    "time" -> number(min = 0),
    "currentLocation1" -> nonEmptyText,
    "otherLocation1" -> text
  )(SearchForm_case1.apply)(SearchForm_case1.unapply verifying("Other location cannot be empty",
    SearchForm_case1 => {
      checkOtherLocation(SearchForm_case1.currentLocation, SearchForm_case1.otherLocation2)
    })
)
```



# PLAY FRAMEWORK

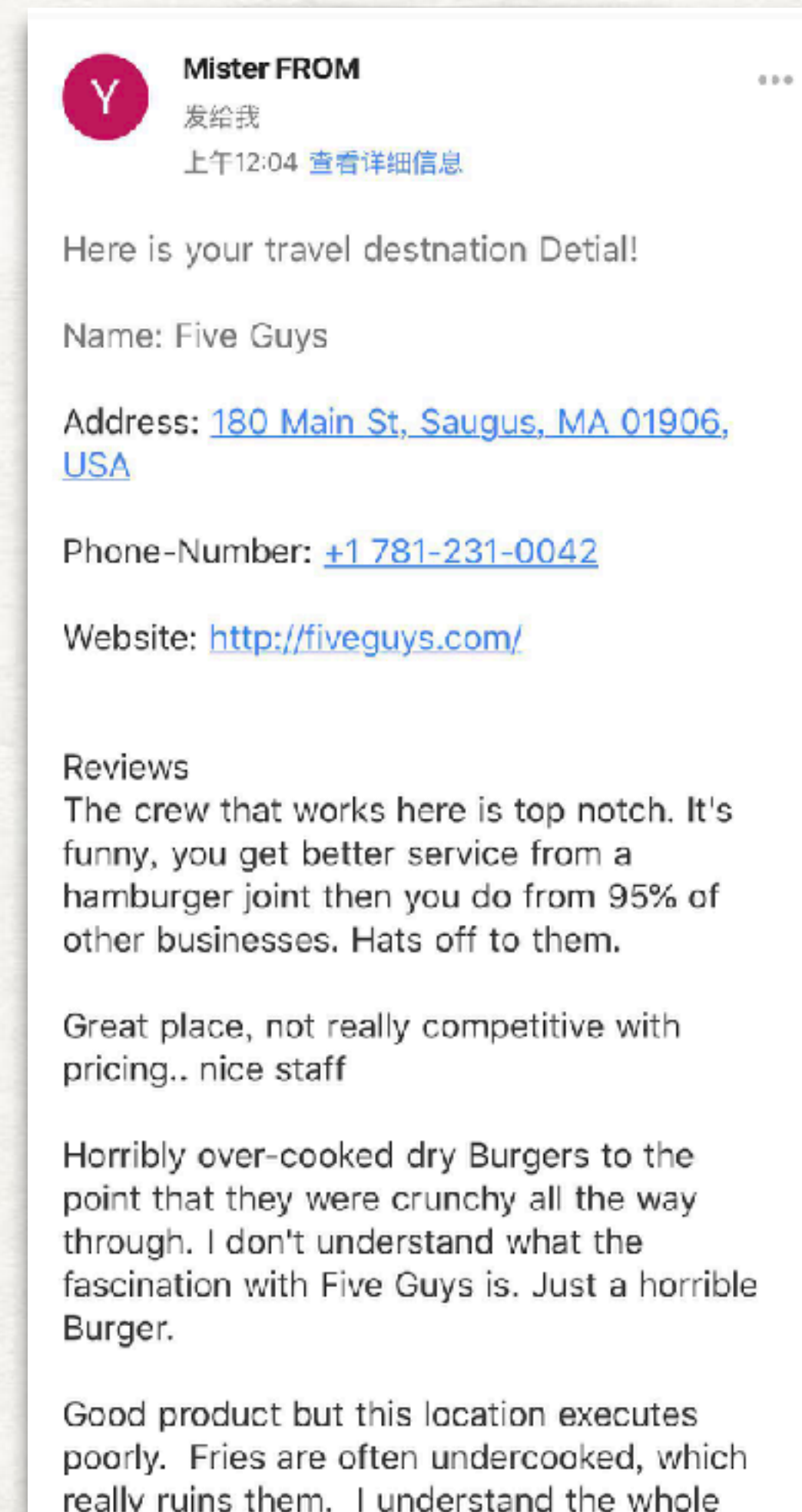
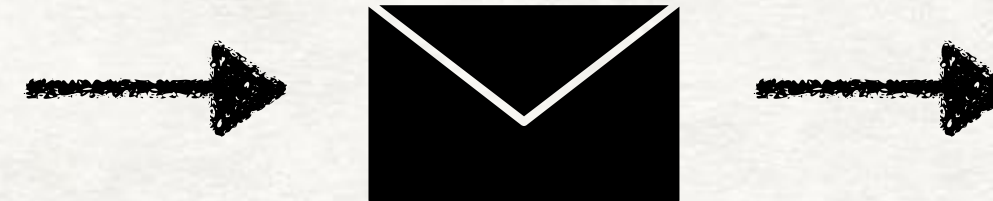
## PLAY-MAILER

```
smtp.mock =false

play.mailer {

  host = "smtp.gmail.com"
  port = 587
  ssl = no
  tls = yes
  user = "*****@gmail.com"
  password = "*****"
  debug = yes
  mail.smtp.auth = true

}
```





# DATABASE



```
/**
 * Insert a new user.
 * @param user The user values.
 */
def insert(user: User): Future[Option[Long]] = Future {
  db.withConnection { implicit connection =>
    SQL("""
      insert into user (name, password,email) values (
        {name}, {password}, {email}
      )
    """).bind(user).executeInsert()
  }
}(databaseExecutionContext)
```

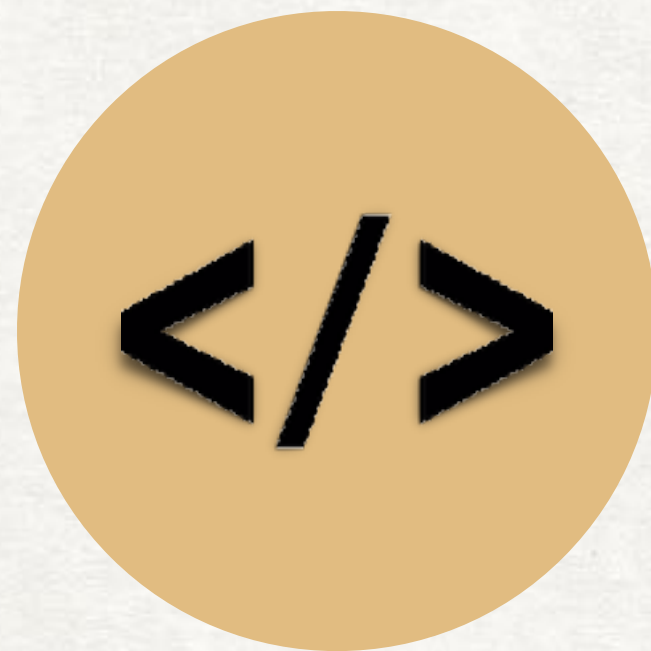


# GOOGLE MAP API



Back-end Web Service

- IP-API
- Geocoding API
- Distance Matrix API
- Places API Web Service



Front-end Web

- Google Maps JavaScript API
- Google Places API JavaScript Library



# UNIT TEST

The screenshot shows an IDE window for a project named 'ripPlanning\_V1'. The left sidebar displays a project tree with folders 'models', 'services', 'TestForScalaJS', and 'views'. The 'views' folder is expanded, showing several HTML files. The main editor displays the 'PlaceSpec.scala' file, which contains Scala code for unit testing. The code imports 'org.scalatestplus.play.PlaySpec', 'org.scalatestplus.play.guice.GuiceOneAppPerSuite', 'play.api.http.Status', 'play.api.test.FakeRequest', and 'play.api.test.Helpers.\_'. It defines a class 'PlaceSpec' that extends 'PlaySpec' and mixes in 'GuiceOneAppPerSuite'. Inside the class, there is a 'should' block for 'PlaceControllerDetail' with an 'in' block for 'render the placedetail page'. This block contains several assertions: 'status(login) mustBe Status.OK', 'contentType(login) mustBe Some("text/html")', and six 'contentAsString(login) must include' assertions for 'photo', 'Phone Number', 'Rating', 'Address', 'Driving', and 'Bicycling'. The bottom of the IDE shows a terminal window with the following output:

```
[info] - should render the Message page
[info] PlaceControllerEmail
[info] - should render the Message page
[info] application - ApplicationTimer demo: Stopping application at 2018-04-23T06:45:52.932Z after 0s.
[info] application - Shutting down connection pool.
[info] ScalaTest
[info] Run completed in 7 seconds, 566 milliseconds.
[info] Total number of tests run: 14
[info] Suites: completed 3, aborted 0
[info] Tests: succeeded 14, failed 0, canceled 0, ignored 0, pending 0
[info] All tests passed.
[info] Passed: total 14, Failed 0, Errors 0, Passed 14
[success] Total time: 14 s, completed Apr 23, 2018 2:45:53 AM
VictormatoMacBook-Pro:TripPlanning_V1 victor$
```

The terminal output indicates that all tests passed successfully. The IDE interface also shows a status bar at the bottom with tabs for 'Find', 'TODO', 'sbt shell', 'Terminal', and 'Build', and a system tray area on the right showing 'Event Log'.



*Thank you*