SOEN 6441

ADVANCED PROGRAMMING PRACTICES

PROJECT: RISK DOMINATION GAME

ARCHITECTURAL DESIGN

TEAM 11

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INTRODUCTION

Goal and architectural design of risk domination game is described in detail. The risk domination game is developed with iterative development and is released by keeping specific goals in mind providing small number of features in each iterations. Architectural design for risk game is MVC(Model View Controller). Each iteration is developed by using Extreme programming features such pair programming, collective ownership, coding standards, continuous integration.

SCOPE

Scope of build one is as per requirements described in build statements.

1. Map editor
    - Creation of map
    - Edit existing map
    - Validate map
    - User-driven creation of map elements
2. Game play
    - Place army - armies are assigned to players in round-robin fashion.
    - Assign country - countries of a map is assigned randomly.
3. Reinforcement phase
    - Place reinforcement army – place reinforcement army on map.
4. Fortification phase
    - Implementation of valid fortification move.

ARCHITECTURAL DESIGN
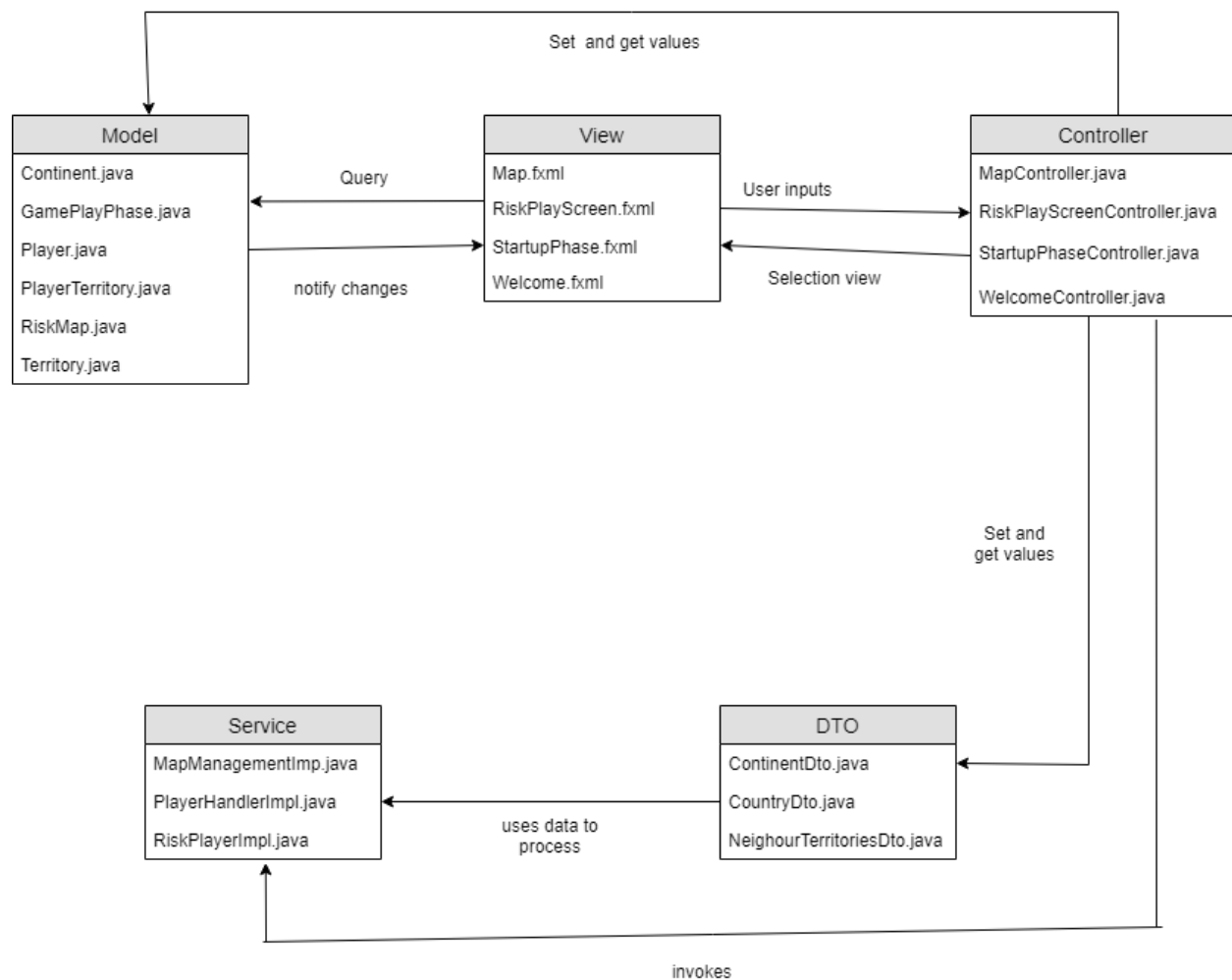
Module Description

Controller

File name	Description
MapController.java	Responsible for map management related operation such as add, remove of map attributes.
RiskPlayScreenController.java	Responsible for operations to be performed when the game play begins.
StartupPhaseController.java	Responsible for invoking methods to perform place armies, add players, populate countries.

| WelcomeController.java | Main controller for invoking views. |

Model

File name	Description
Continent.java	Model of continent data.
GamePlayPhase.java	Model of game phase.
Player.java	Model of player data.
PlayerTerritory.java	Model of map data of a player.
RiskMap.java	Model of map data.
Territory.java	Model of territory data.

View

File name	Description
Map.fxml	View responsible for performing operations of map and displaying it.
RiskPlayScreen.fxml	View responsile for playing the game and displaying it.
StartupPhase.fxml	View responsible for providing value to start the game.
Welcome.fxml	First view of risk domination game.

DTO

File name	Description
ContinentDto.java	Responsible for manipulation of continent attributes.
CountryDto.java	Responsible for manipulation of country attributes.
NeighbourTerritoriesDto.java	Responsible for manipulation of neighbor territories attributes.

SERVICE

File name	Description
MapManagementImpl.java	Responsible for implementing business logic of map management operation.
PlayerHandlerImpl.java	Responsible for implementing business logic of handling a player.

LOGGING

File name	Description
ExceptionWriter.java	Errors occurred during execution of a program is handled in this file.