The (Re)Quest of the GET_RECT()

The Nollan Awakens

and the Frum of Secrets

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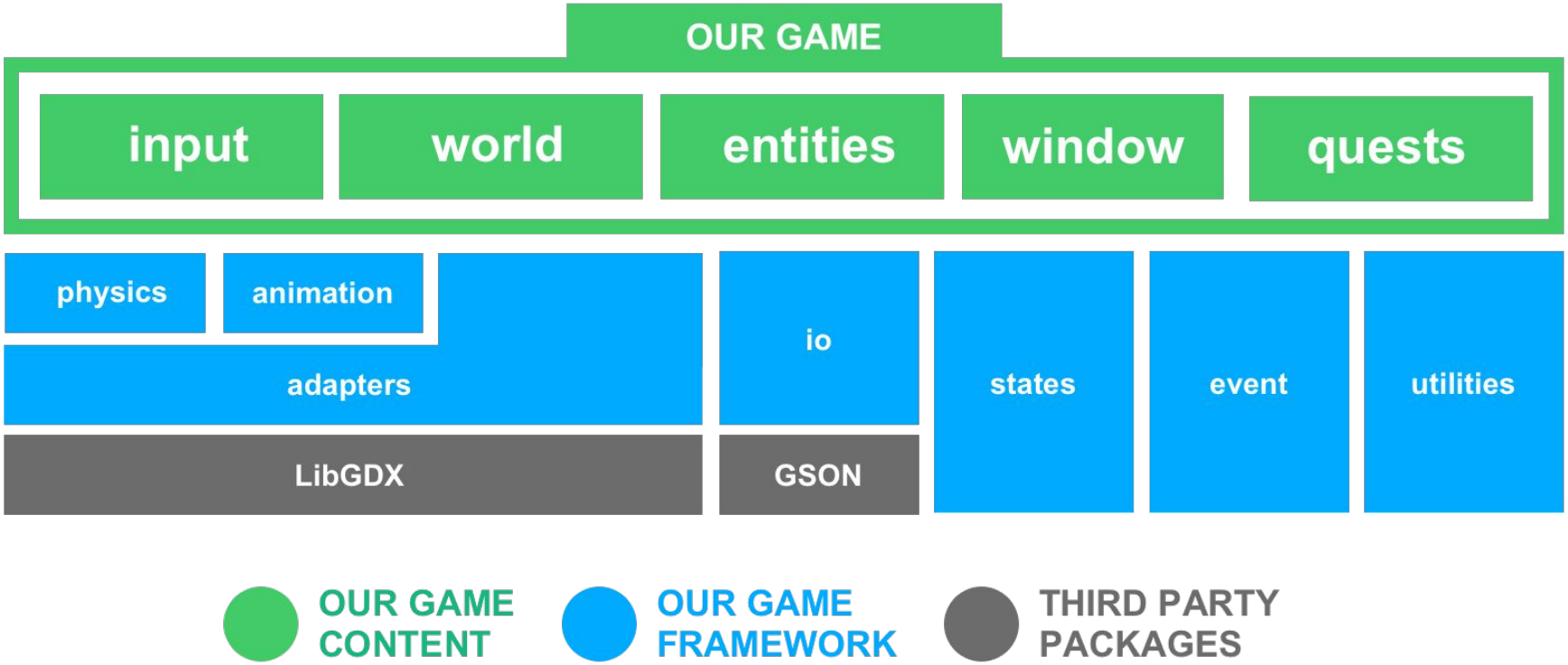
INTRODUCTION & STRUCTURE

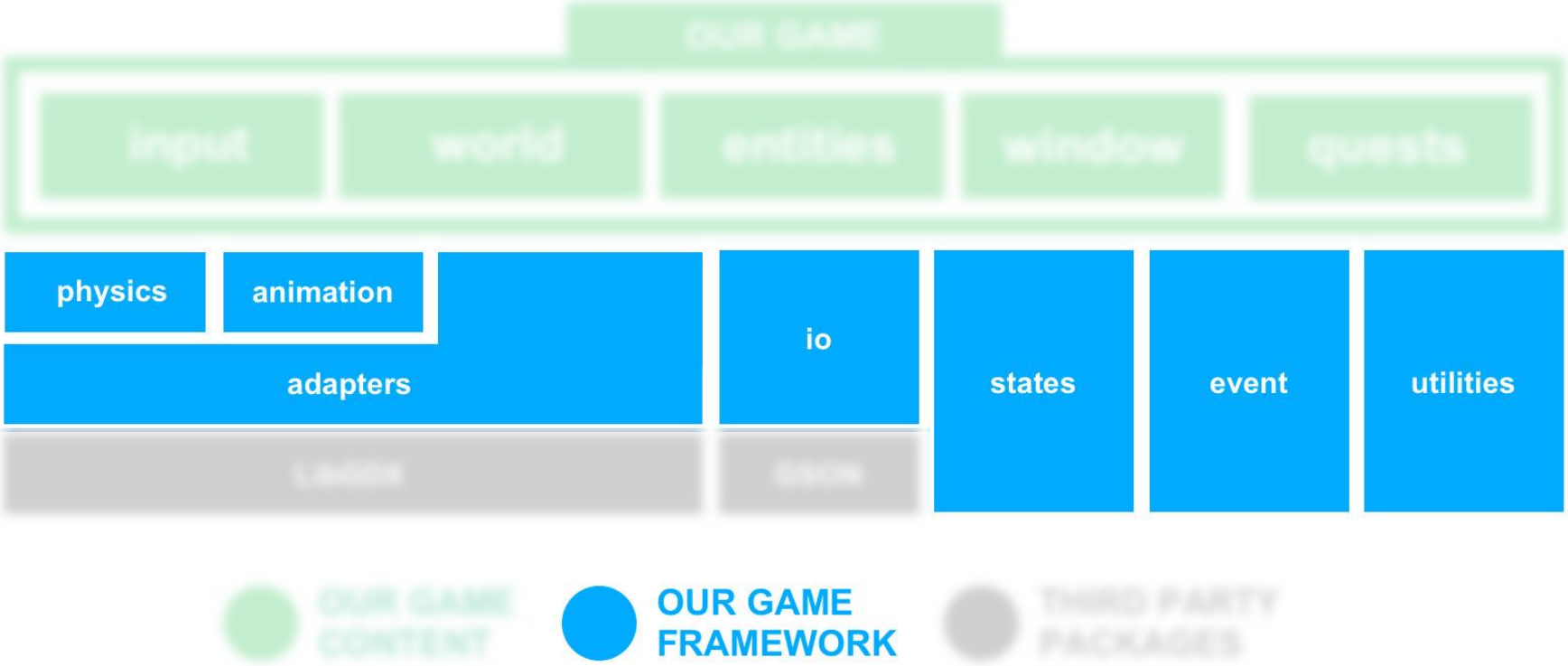
- Demonstration
- Technical solutions
  - Game heirarcy
  - Design patterns
  - Features
- Results
- Questions

DEMO TIME!

GAME HIERARCHY

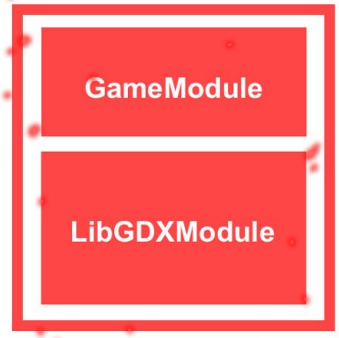


SUBSYSTEMS


OUR GAME
input
world
entities
window
quests
physics
animation
adapters
io
states
event
utilities
OUR GAME CONTENT
OUR GAME FRAMEWORK
THIRD PARTY PACKAGES

DEPENDENCY INJECTION

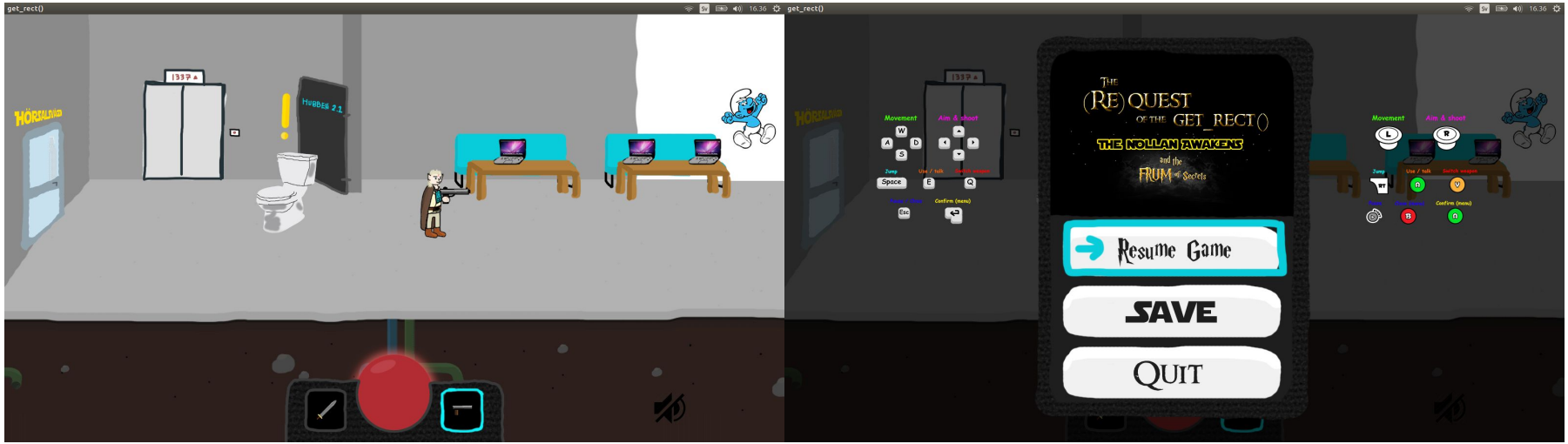
Google
Guice



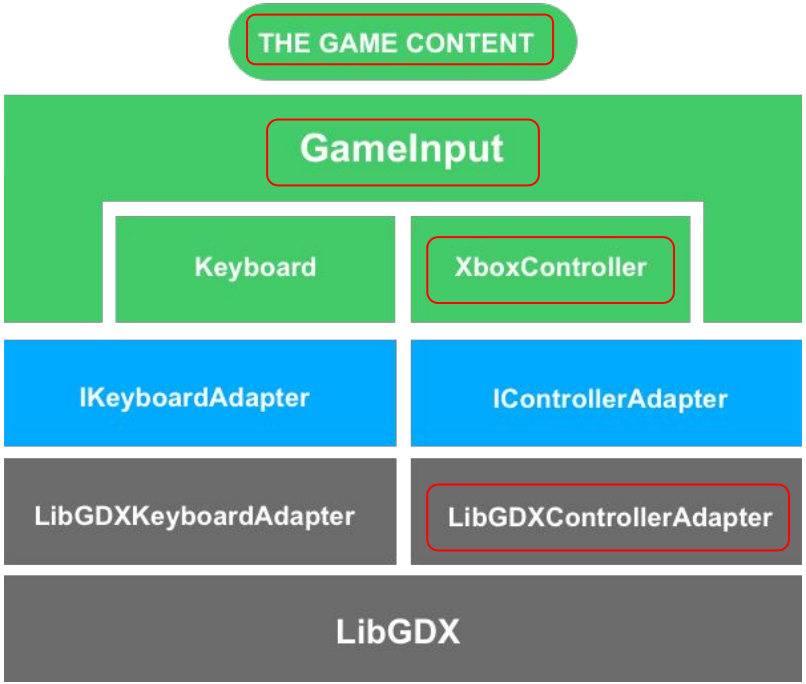
DEPENDENCY
INJECTION

```
public class PlayerFactory {
    @Inject private IRectangleFactoryAdapter rectangleFactory;
    @Inject private IAudioManagerAdapter audioManager;
    @Inject private WeaponFactory weaponFactory;

    public IEntity make() {
```

GAME WORLDS AND WINDOWS



INPUT MANAGEMENT




```
        keys = new HashMap<>();
    public boolean isKeyJustPressed(Actions key) {
        if (key.equals(Actions.SHOOT))                    ){
@Override
public boolean isKeyJustPressed(Keys key) {
    boolean status = keyMap.containsKey(key) && controller
            != null && releasedMap.get(keyMap.get(key));
    releasedMap.put(keyMap.get(key), false);
    return status;
}
        keys.put(Actions.CONFIRM, IControllerInputAdapter.Keys.A);
        keys.put(Actions.MENU, IControllerInputAdapter.Keys.START);
        keys.put(Actions.EXIT_MENU, IControllerInputAdapter.Keys.B);
        keys.put(Actions.RESPAWN, IControllerInputAdapter.Keys.BACK);
```

LOADING AND SAVING DATA WITH JSON

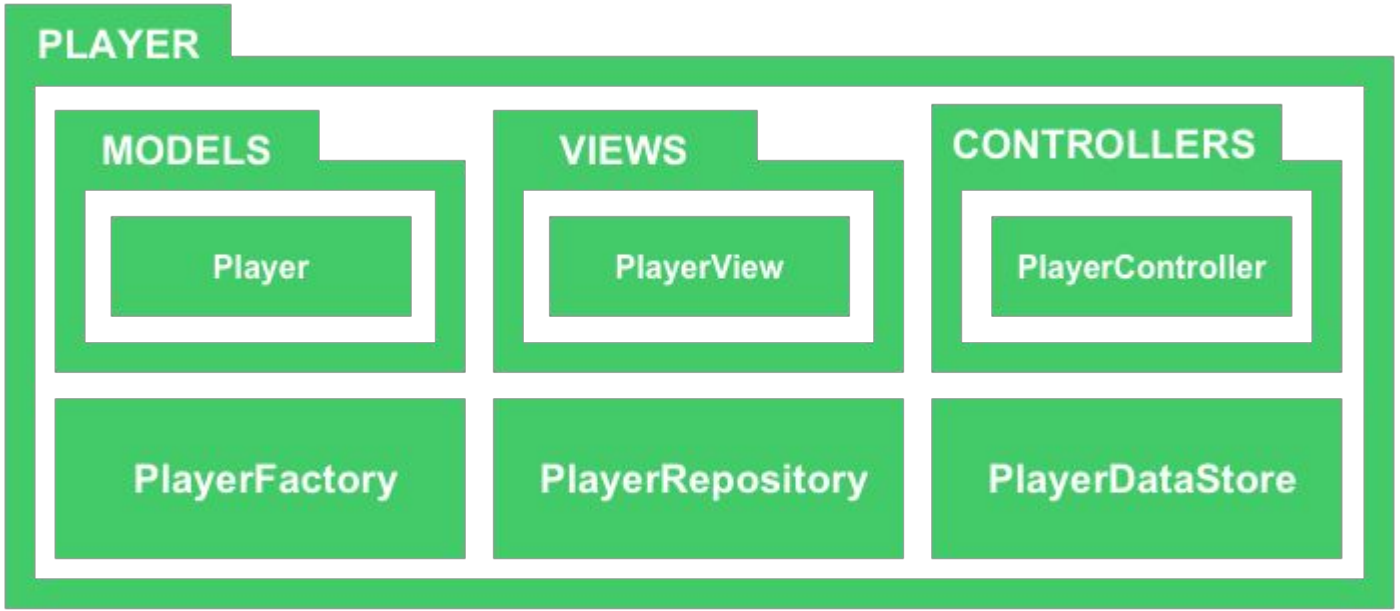
Enemies

```
[
  {
    "type": "zombie",
    "x": 1200,
    "y": 1500
  },

  {
    "type": "zombie",
    "x": 1500,
```

Weapons

```
{
  "type": "wand_fire",
  "speed" : 100,
  "damage": 100,
  "cooldown": 20
},

{
  "type": "wand_arcane",
  "speed" : 100,
  "damage": 50
```

GAME ENTITIES



QUEST SYSTEM

```
{
  "id": 1,
  "title": "The first one is free",
  "acceptText": "Hello Nollan! I am Rekoil, the Linux dealer her
  "completionText": "Thanks a lot! Here, be discrete... I don't
  "objectives": [
    {
      "type": "computer",
      "action": "installed arch",
      "requiredCount": 6,
      "infoText": "Install Arch Linux"
    }
  ]
},
```

AUTOMATED TESTS

94 %

42 models, 4002 lines of code

CONCLUSION

EXTENSIBLE RPG GAME FRAMEWORK
NPCs
Worlds
Quests
Weapons
Enemies

Questions?