**Лабораторная работа №3**

**по курсу «Разработка ПО»**

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**Проверил: Иванов А.М.**

## Задание

Создать тестовый Eclipse-проект, в котором происходит формирование информационной модели данных диаграммы и работа с данными в соответствии со своим вариантом задания и требованиями.

Добавить созданные проект в репозитарий системы контроля версий.

## Цель лабораторной работы

* Углубление навыков работы с системой контроля версий
* Ознакомление на практике с основами графовых БД и технологий Semantic Web

## Картинка-задание

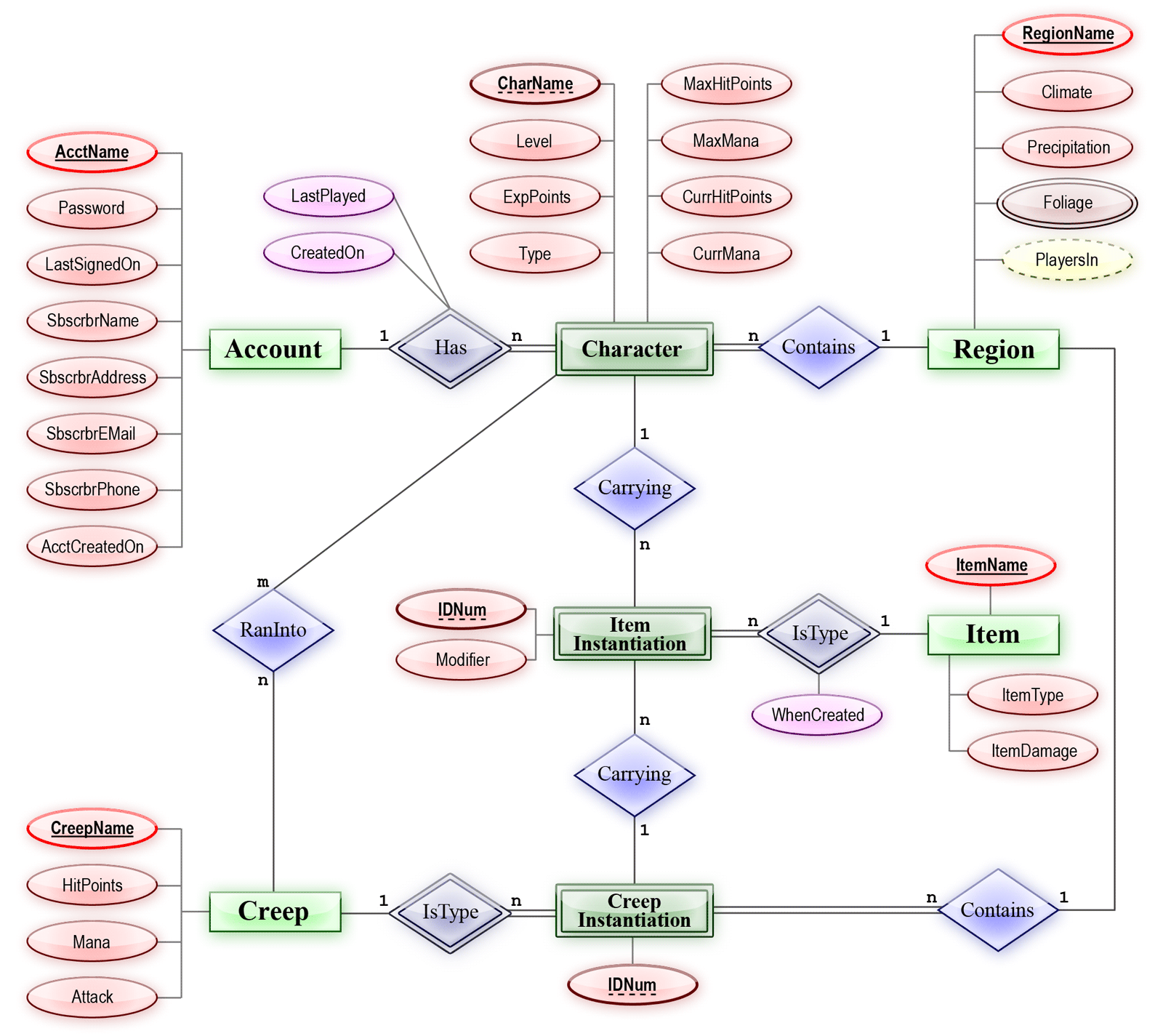


Рисунок 1. Задание

## Выполнение

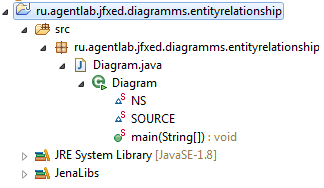


Рисунок 2. Структура папок

Файл Diagram.java

package ru.agentlab.jfxed.diagramms.entityrelationship;

import com.hp.hpl.jena.ontology.Individual;

import com.hp.hpl.jena.ontology.ObjectProperty;

import com.hp.hpl.jena.ontology.OntClass;

import com.hp.hpl.jena.ontology.OntModel;

import com.hp.hpl.jena.rdf.model.ModelFactory;

public class Diagram {

static String SOURCE = "http://www.eswc2006.org/technologies/ontology";

static String NS = SOURCE + "#";

//test from sourcetree

public static void main (String[] args){

/\*

\* Здесь объявляем объекты квадратики схемы

\* \*/

OntModel m = ModelFactory.createOntologyModel();//создается пустая база знаний

ObjectProperty propTo = m.createObjectProperty(NS + "To");//объекты - свойства

ObjectProperty propFrom = m.createObjectProperty(NS + "From");

ObjectProperty propAttrTo = m.createObjectProperty(NS + "Attribution To");//объекты - свойства

ObjectProperty propAttrFrom = m.createObjectProperty(NS + "Attribution From");

/\*

\* RELATION

\* \*/

//

OntClass relationClass = m.createClass(NS + "Relation");//родительский суперкласс

//для того чтобы отличать фигурки от связей

OntClass relationshipClass = m.createClass(NS + "Relationship");//связь Relatinship

OntClass attrRelationshipClass = m.createClass(NS + "Attribute Relationship");//связь Attribute Relationship

//сюда повсему мы говорим что наши стрелочки это association

relationshipClass.addSuperClass(relationClass);//родительская связь

attrRelationshipClass.addSuperClass(relationClass);//родительская связь

/\*

\* end

\* \*/

/\*

\* CONCEPT

\* \*/

OntClass conceptClass = m.createClass(NS + "Concept");//родительский суперкласс

//для того чтобы отличать атрибуты

OntClass attributeConceptClass = m.createClass(NS + "Attribute Concept");

OntClass entityConceptClass = m.createClass(NS + "Entity Concept");

attributeConceptClass.addSuperClass(conceptClass);//родительская связь

entityConceptClass.addSuperClass(conceptClass);//родительская связь

/\*

\* end

\* \*/

propTo.addDomain(relationshipClass);

propFrom.addDomain(entityConceptClass);

propAttrTo.addDomain(attrRelationshipClass);

propAttrFrom.addDomain(relationshipClass);

propAttrFrom.addDomain(entityConceptClass);

//связи в

propFrom.addRange(relationshipClass);

//свзязи от

propTo.addRange(entityConceptClass);

//связи в Attr

propAttrFrom.addRange(attrRelationshipClass);

//связи от Attr

propAttrTo.addRange(attributeConceptClass);

//наполнение базы создание экзампляров

//Прямоугольники

Individual accountIndividual = m.createIndividual(NS + "account", entityConceptClass);

Individual characterIndividual = m.createIndividual(NS + "character", entityConceptClass);

Individual regionIndividual = m.createIndividual(NS+ "region", entityConceptClass);

Individual itemInstantiationIndividual = m.createIndividual(NS+ "item instantiation", entityConceptClass);

Individual itemIndividual = m.createIndividual(NS+ "item", entityConceptClass);

Individual creepInstantiationIndividual = m.createIndividual(NS+ "creep instantiation", entityConceptClass);

Individual creepIndividual = m.createIndividual(NS+ "creep", entityConceptClass);

//Ромбики

Individual hasIndividual = m.createIndividual(NS+ "Has", relationshipClass);

Individual containsIndividual = m.createIndividual(NS+ "Contains", relationshipClass);

Individual carryingIndividual = m.createIndividual(NS+ "Carrying", relationshipClass);

Individual ranIntoIndividual = m.createIndividual(NS+ "Ran Into", relationshipClass);

Individual isTypeIndividual = m.createIndividual(NS+ "Is Type", relationshipClass);

//связи ACCOUNT

Individual acctName = m.createIndividual(NS + "Account name", attributeConceptClass);

acctName.addProperty(propAttrFrom, accountIndividual);

Individual password = m.createIndividual(NS + "Password", attributeConceptClass);

password.addProperty(propAttrFrom, accountIndividual);

Individual lastSignedOn = m.createIndividual(NS + "Last Signed On", attributeConceptClass);

lastSignedOn.addProperty(propAttrFrom, accountIndividual);

Individual sbscrbrName = m.createIndividual(NS + "Subscriber name", attributeConceptClass);

sbscrbrName.addProperty(propAttrFrom, accountIndividual);

Individual sbscrbrAddres = m.createIndividual(NS + "Subscriber Addres", attributeConceptClass);

sbscrbrAddres.addProperty(propAttrFrom, accountIndividual);

Individual sbscrbrEMail = m.createIndividual(NS + "Subscriber EMail", attributeConceptClass);

sbscrbrEMail.addProperty(propAttrFrom, accountIndividual);

Individual sbscrbrPhone = m.createIndividual(NS + "Subscribert Phone", attributeConceptClass);

sbscrbrPhone.addProperty(propAttrFrom, accountIndividual);

Individual acctCreatedOn = m.createIndividual(NS + "Account Created On", attributeConceptClass);

acctCreatedOn.addProperty(propAttrFrom, accountIndividual);

//связи CHARACTER

Individual charName = m.createIndividual(NS + "Character name", attributeConceptClass);

charName.addProperty(propAttrFrom, characterIndividual);

Individual level = m.createIndividual(NS + "Character Level", attributeConceptClass);

level.addProperty(propAttrFrom, characterIndividual);

Individual expPoints = m.createIndividual(NS + "Character exp Points", attributeConceptClass);

expPoints.addProperty(propAttrFrom, characterIndividual);

Individual type = m.createIndividual(NS + "Character type", attributeConceptClass);

type.addProperty(propAttrFrom, characterIndividual);

Individual maxHitPoints = m.createIndividual(NS + "Character Max Hit Points", attributeConceptClass);

maxHitPoints.addProperty(propAttrFrom, characterIndividual);

Individual maxMana = m.createIndividual(NS + "Character Max Mana", attributeConceptClass);

maxMana.addProperty(propAttrFrom, characterIndividual);

Individual currHitPoints = m.createIndividual(NS + "Character Current Hit Points", attributeConceptClass);

currHitPoints.addProperty(propAttrFrom, characterIndividual);

Individual currMana = m.createIndividual(NS + "Character Current Mana", attributeConceptClass);

currMana.addProperty(propAttrFrom, characterIndividual);

//связи REGION

Individual regionName = m.createIndividual(NS + "Region name", attributeConceptClass);

regionName.addProperty(propAttrFrom, regionIndividual);

Individual climate = m.createIndividual(NS + "Region Climate", attributeConceptClass);

climate.addProperty(propAttrFrom, regionIndividual);

Individual precipitation = m.createIndividual(NS + "Region Precipitation", attributeConceptClass);

precipitation.addProperty(propAttrFrom, regionIndividual);

Individual foliage = m.createIndividual(NS + "Region Foliage", attributeConceptClass);

foliage.addProperty(propAttrFrom, regionIndividual);

Individual playersln = m.createIndividual(NS + "Region Playersln", attributeConceptClass);

playersln.addProperty(propAttrFrom, regionIndividual);

//связи ITEM INSTANTIATION

Individual itemIdnum = m.createIndividual(NS + "Item IDNum", attributeConceptClass);

itemIdnum.addProperty(propAttrFrom, itemInstantiationIndividual);

Individual modifier = m.createIndividual(NS + "Item Modifier", attributeConceptClass);

modifier.addProperty(propAttrFrom, itemInstantiationIndividual);

//связи ITEM

Individual itemName = m.createIndividual(NS + "Item Name", attributeConceptClass);

itemName.addProperty(propAttrFrom, itemIndividual);

Individual itemType = m.createIndividual(NS + "Item Type", attributeConceptClass);

itemType.addProperty(propAttrFrom, itemIndividual);

Individual itemDamage = m.createIndividual(NS + "Item Damage", attributeConceptClass);

itemDamage.addProperty(propAttrFrom, itemIndividual);

//связи CREEP INSTANTIATION

Individual creepIdnum = m.createIndividual(NS + "Creep IDNum", attributeConceptClass);

creepIdnum.addProperty(propAttrFrom, creepInstantiationIndividual);

//связи CREEP

Individual creepName = m.createIndividual(NS + "Creep Name", attributeConceptClass);

creepName.addProperty(propAttrFrom, creepIndividual);

Individual creepHP = m.createIndividual(NS + "Creep Hit Points", attributeConceptClass);

creepHP.addProperty(propAttrFrom, creepIndividual);

Individual creepMana = m.createIndividual(NS + "Creep Mana", attributeConceptClass);

creepMana.addProperty(propAttrFrom, creepIndividual);

Individual creepAttack = m.createIndividual(NS + "Creep Attack", attributeConceptClass);

creepAttack.addProperty(propAttrFrom, creepIndividual);

//СВЯЗИ (РОМБИКИ)

// HAS

Individual lastPlayed = m.createIndividual(NS + "Last played", attributeConceptClass);

lastPlayed.addProperty(propAttrFrom, hasIndividual);

Individual createdOn = m.createIndividual(NS + "Created On", attributeConceptClass);

createdOn.addProperty(propAttrFrom, hasIndividual);

//IS TYPE

Individual whenCreated = m.createIndividual(NS + "When Created", attributeConceptClass);

whenCreated.addProperty(propAttrFrom, isTypeIndividual);

//ACCOUNT - HAS

Individual acctHas = m.createIndividual(NS + "Account to Has", entityConceptClass);

acctHas.addProperty(propFrom, hasIndividual);

Individual hasAcct = m.createIndividual(NS + "Has to Account ", relationshipClass);

hasAcct.addProperty(propTo, accountIndividual);

//CHARACTER->HAS

Individual charHas = m.createIndividual(NS + "Character to Has", entityConceptClass);

charHas.addProperty(propFrom, hasIndividual);

Individual hasChar = m.createIndividual(NS + "Has to Character ", relationshipClass);

hasChar.addProperty(propTo, characterIndividual);

//CHARACTER->RanInto

Individual charRI = m.createIndividual(NS + "Character to Ran Into", entityConceptClass);

charRI.addProperty(propFrom, ranIntoIndividual);

Individual RIChar = m.createIndividual(NS + "Ran Into to Character ", relationshipClass);

RIChar.addProperty(propTo, characterIndividual);

//CHARACTER->CONTAINS

Individual charCont = m.createIndividual(NS + "Character to Contains", entityConceptClass);

charCont.addProperty(propFrom, containsIndividual);

Individual contChar = m.createIndividual(NS + "Contains to Character ", relationshipClass);

contChar.addProperty(propTo, characterIndividual);

//CHARACTER->CARRYING

Individual charCarr = m.createIndividual(NS + "Character to Carrying", entityConceptClass);

charCarr.addProperty(propFrom, carryingIndividual);

Individual carrChar = m.createIndividual(NS + "Carrying to Character ", relationshipClass);

carrChar.addProperty(propTo, characterIndividual);

//REGION->CONTAINS

Individual regCont = m.createIndividual(NS + "Region to Contains", entityConceptClass);

regCont.addProperty(propFrom, containsIndividual);

Individual contReg = m.createIndividual(NS + "Contains to Region ", relationshipClass);

contReg.addProperty(propTo, regionIndividual);

//ITEM INSTANTIATION->CARRYING

Individual IICarr = m.createIndividual(NS + "Item Instantiation to Carrying", entityConceptClass);

IICarr.addProperty(propFrom, carryingIndividual);

Individual carrII = m.createIndividual(NS + "Carrying to Item Instantiation ", relationshipClass);

carrII.addProperty(propTo, itemInstantiationIndividual);

//ITEM INSTANTIATION->IS TYPE

Individual IIiT = m.createIndividual(NS + "Item Instantiation to Is Type", entityConceptClass);

IIiT.addProperty(propFrom, isTypeIndividual);

Individual ITiI = m.createIndividual(NS + "Is Type to Item Instantiation ", relationshipClass);

ITiI.addProperty(propTo, itemInstantiationIndividual);

//ITEM ->IS TYPE

Individual ItemiT = m.createIndividual(NS + "Item to Is Type", entityConceptClass);

ItemiT.addProperty(propFrom, isTypeIndividual);

Individual ITitem = m.createIndividual(NS + "Is Type to Item", relationshipClass);

ITitem.addProperty(propTo, itemIndividual);

//CREEP INSTANTIATION->CARRYING

Individual CICarr = m.createIndividual(NS + "Creep Instantiation to Carrying", entityConceptClass);

CICarr.addProperty(propFrom, carryingIndividual);

Individual carrCI = m.createIndividual(NS + "Carrying to Creep Instantiation ", relationshipClass);

carrCI.addProperty(propTo, creepInstantiationIndividual);

//CREEP INSTANTIATION->IS TYPE

Individual CIiT = m.createIndividual(NS + "Creep Instantiation to Is Type", entityConceptClass);

CIiT.addProperty(propFrom, isTypeIndividual);

Individual ITcI = m.createIndividual(NS + "Is Type to Creep Instantiation ", relationshipClass);

ITcI.addProperty(propTo, creepInstantiationIndividual);

//CREEP INSTANTIATION->CONTAINS

Individual CiCont = m.createIndividual(NS + "Creep Instantiation to Contains", entityConceptClass);

CiCont.addProperty(propFrom, containsIndividual);

Individual contCi = m.createIndividual(NS + "Contains to Creep Instantiation ", relationshipClass);

contCi.addProperty(propTo, creepInstantiationIndividual);

//CREEP ->IS TYPE

Individual CreepiT = m.createIndividual(NS + "Creep to Is Type", entityConceptClass);

CreepiT.addProperty(propFrom, isTypeIndividual);

Individual ITcreep = m.createIndividual(NS + "Is Type to Creep", relationshipClass);

ITcreep.addProperty(propTo, creepIndividual);

//CREEP->RanInto

Individual creepRI = m.createIndividual(NS + "Creep to Ran Into", entityConceptClass);

creepRI.addProperty(propFrom, ranIntoIndividual);

Individual RICreep = m.createIndividual(NS + "Ran Into to Creep ", relationshipClass);

RICreep.addProperty(propTo, creepIndividual);

m.write(System.out, "N3");//вывод в консоль

}

}

Вывод программы:

@prefix owl: <http://www.w3.org/2002/07/owl#> .

@prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .

@prefix xsd: <http://www.w3.org/2001/XMLSchema#> .

@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#> .

<http://www.eswc2006.org/technologies/ontology#creep instantiation>

a <http://www.eswc2006.org/technologies/ontology#Entity Concept> .

<http://www.eswc2006.org/technologies/ontology#Is Type to Creep>

a <http://www.eswc2006.org/technologies/ontology#Relationship> ;

<http://www.eswc2006.org/technologies/ontology#To>

<http://www.eswc2006.org/technologies/ontology#creep> .

<http://www.eswc2006.org/technologies/ontology#Carrying to Item Instantiation >

a <http://www.eswc2006.org/technologies/ontology#Relationship> ;

<http://www.eswc2006.org/technologies/ontology#To>

<http://www.eswc2006.org/technologies/ontology#item instantiation> .

<http://www.eswc2006.org/technologies/ontology#Character Level>

a <http://www.eswc2006.org/technologies/ontology#Attribute Concept> ;

<http://www.eswc2006.org/technologies/ontology#Attribution From>

<http://www.eswc2006.org/technologies/ontology#character> .

<http://www.eswc2006.org/technologies/ontology#Password>

a <http://www.eswc2006.org/technologies/ontology#Attribute Concept> ;

<http://www.eswc2006.org/technologies/ontology#Attribution From>

<http://www.eswc2006.org/technologies/ontology#account> .

<http://www.eswc2006.org/technologies/ontology#character>

a <http://www.eswc2006.org/technologies/ontology#Entity Concept> .

<http://www.eswc2006.org/technologies/ontology#Ran Into to Creep >

a <http://www.eswc2006.org/technologies/ontology#Relationship> ;

<http://www.eswc2006.org/technologies/ontology#To>

<http://www.eswc2006.org/technologies/ontology#creep> .

<http://www.eswc2006.org/technologies/ontology#Item IDNum>

a <http://www.eswc2006.org/technologies/ontology#Attribute Concept> ;

<http://www.eswc2006.org/technologies/ontology#Attribution From>

<http://www.eswc2006.org/technologies/ontology#item instantiation> .

<http://www.eswc2006.org/technologies/ontology#account>

a <http://www.eswc2006.org/technologies/ontology#Entity Concept> .

<http://www.eswc2006.org/technologies/ontology#Region Foliage>

a <http://www.eswc2006.org/technologies/ontology#Attribute Concept> ;

<http://www.eswc2006.org/technologies/ontology#Attribution From>

<http://www.eswc2006.org/technologies/ontology#region> .

<http://www.eswc2006.org/technologies/ontology#Entity Concept>

a owl:Class ;

rdfs:subClassOf <http://www.eswc2006.org/technologies/ontology#Concept> .

<http://www.eswc2006.org/technologies/ontology#Item Instantiation to Is Type>

a <http://www.eswc2006.org/technologies/ontology#Entity Concept> ;

<http://www.eswc2006.org/technologies/ontology#From>

<http://www.eswc2006.org/technologies/ontology#Is Type> .

<http://www.eswc2006.org/technologies/ontology#Creep Name>

a <http://www.eswc2006.org/technologies/ontology#Attribute Concept> ;

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<http://www.eswc2006.org/technologies/ontology#creep> .

<http://www.eswc2006.org/technologies/ontology#Subscriber EMail>

a <http://www.eswc2006.org/technologies/ontology#Attribute Concept> ;

<http://www.eswc2006.org/technologies/ontology#Attribution From>

<http://www.eswc2006.org/technologies/ontology#account> .

<http://www.eswc2006.org/technologies/ontology#Has>

a <http://www.eswc2006.org/technologies/ontology#Relationship> .

<http://www.eswc2006.org/technologies/ontology#creep>

a <http://www.eswc2006.org/technologies/ontology#Entity Concept> .

<http://www.eswc2006.org/technologies/ontology#Attribution To>

a owl:ObjectProperty ;

rdfs:domain <http://www.eswc2006.org/technologies/ontology#Attribute Relationship> ;

rdfs:range <http://www.eswc2006.org/technologies/ontology#Attribute Concept> .

<http://www.eswc2006.org/technologies/ontology#Character Current Mana>

a <http://www.eswc2006.org/technologies/ontology#Attribute Concept> ;

<http://www.eswc2006.org/technologies/ontology#Attribution From>

<http://www.eswc2006.org/technologies/ontology#character> .

<http://www.eswc2006.org/technologies/ontology#Item Type>

a <http://www.eswc2006.org/technologies/ontology#Attribute Concept> ;

<http://www.eswc2006.org/technologies/ontology#Attribution From>

<http://www.eswc2006.org/technologies/ontology#item> .

<http://www.eswc2006.org/technologies/ontology#Character exp Points>

a <http://www.eswc2006.org/technologies/ontology#Attribute Concept> ;

<http://www.eswc2006.org/technologies/ontology#Attribution From>

<http://www.eswc2006.org/technologies/ontology#character> .

<http://www.eswc2006.org/technologies/ontology#Creep Hit Points>

a <http://www.eswc2006.org/technologies/ontology#Attribute Concept> ;

<http://www.eswc2006.org/technologies/ontology#Attribution From>

<http://www.eswc2006.org/technologies/ontology#creep> .

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<http://www.eswc2006.org/technologies/ontology#Region Precipitation>

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<http://www.eswc2006.org/technologies/ontology#To>

a owl:ObjectProperty ;

rdfs:domain <http://www.eswc2006.org/technologies/ontology#Relationship> ;

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<http://www.eswc2006.org/technologies/ontology#Ran Into to Character >

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<http://www.eswc2006.org/technologies/ontology#item instantiation> .

<http://www.eswc2006.org/technologies/ontology#Character to Has>

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<http://www.eswc2006.org/technologies/ontology#Last Signed On>

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<http://www.eswc2006.org/technologies/ontology#Ran Into>

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a <http://www.eswc2006.org/technologies/ontology#Attribute Concept> ;

<http://www.eswc2006.org/technologies/ontology#Attribution From>

<http://www.eswc2006.org/technologies/ontology#creep> .

<http://www.eswc2006.org/technologies/ontology#Region name>

a <http://www.eswc2006.org/technologies/ontology#Attribute Concept> ;

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a <http://www.eswc2006.org/technologies/ontology#Entity Concept> ;

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a <http://www.eswc2006.org/technologies/ontology#Relationship> ;

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<http://www.eswc2006.org/technologies/ontology#Character name>

a <http://www.eswc2006.org/technologies/ontology#Attribute Concept> ;

<http://www.eswc2006.org/technologies/ontology#Attribution From>

<http://www.eswc2006.org/technologies/ontology#character> .

<http://www.eswc2006.org/technologies/ontology#Is Type>

a <http://www.eswc2006.org/technologies/ontology#Relationship> .

<http://www.eswc2006.org/technologies/ontology#Account name>

a <http://www.eswc2006.org/technologies/ontology#Attribute Concept> ;

<http://www.eswc2006.org/technologies/ontology#Attribution From>

<http://www.eswc2006.org/technologies/ontology#account> .

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<http://www.eswc2006.org/technologies/ontology#Region Climate>

a <http://www.eswc2006.org/technologies/ontology#Attribute Concept> ;

<http://www.eswc2006.org/technologies/ontology#Attribution From>

<http://www.eswc2006.org/technologies/ontology#region> .

<http://www.eswc2006.org/technologies/ontology#Character type>

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<http://www.eswc2006.org/technologies/ontology#character> .

<http://www.eswc2006.org/technologies/ontology#Attribute Concept>

a owl:Class ;

rdfs:subClassOf <http://www.eswc2006.org/technologies/ontology#Concept> .

<http://www.eswc2006.org/technologies/ontology#From>

a owl:ObjectProperty ;

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rdfs:range <http://www.eswc2006.org/technologies/ontology#Relationship> .

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<http://www.eswc2006.org/technologies/ontology#To>

<http://www.eswc2006.org/technologies/ontology#creep instantiation> .

<http://www.eswc2006.org/technologies/ontology#Creep Attack>

a <http://www.eswc2006.org/technologies/ontology#Attribute Concept> ;

<http://www.eswc2006.org/technologies/ontology#Attribution From>

<http://www.eswc2006.org/technologies/ontology#creep> .

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a <http://www.eswc2006.org/technologies/ontology#Attribute Concept> ;

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<http://www.eswc2006.org/technologies/ontology#character> .

<http://www.eswc2006.org/technologies/ontology#Creep Instantiation to Contains>

a <http://www.eswc2006.org/technologies/ontology#Entity Concept> ;

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<http://www.eswc2006.org/technologies/ontology#Contains> .

<http://www.eswc2006.org/technologies/ontology#Relationship>

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a <http://www.eswc2006.org/technologies/ontology#Relationship> ;

<http://www.eswc2006.org/technologies/ontology#To>

<http://www.eswc2006.org/technologies/ontology#character> .

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a <http://www.eswc2006.org/technologies/ontology#Entity Concept> ;

<http://www.eswc2006.org/technologies/ontology#From>

<http://www.eswc2006.org/technologies/ontology#Carrying> .

<http://www.eswc2006.org/technologies/ontology#Attribute Relationship>

a owl:Class ;

rdfs:subClassOf <http://www.eswc2006.org/technologies/ontology#Relation> .

<http://www.eswc2006.org/technologies/ontology#Region to Contains>

a <http://www.eswc2006.org/technologies/ontology#Entity Concept> ;

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<http://www.eswc2006.org/technologies/ontology#Contains> .

<http://www.eswc2006.org/technologies/ontology#Item Name>

a <http://www.eswc2006.org/technologies/ontology#Attribute Concept> ;

<http://www.eswc2006.org/technologies/ontology#Attribution From>

<http://www.eswc2006.org/technologies/ontology#item> .

<http://www.eswc2006.org/technologies/ontology#item>

a <http://www.eswc2006.org/technologies/ontology#Entity Concept> .

<http://www.eswc2006.org/technologies/ontology#Item to Is Type>

a <http://www.eswc2006.org/technologies/ontology#Entity Concept> ;

<http://www.eswc2006.org/technologies/ontology#From>

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a <http://www.eswc2006.org/technologies/ontology#Attribute Concept> ;

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<http://www.eswc2006.org/technologies/ontology#account> .

<http://www.eswc2006.org/technologies/ontology#Region Playersln>

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<http://www.eswc2006.org/technologies/ontology#account> .

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a <http://www.eswc2006.org/technologies/ontology#Relationship> ;

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<http://www.eswc2006.org/technologies/ontology#creep instantiation> .

<http://www.eswc2006.org/technologies/ontology#Contains>

a <http://www.eswc2006.org/technologies/ontology#Relationship> .

<http://www.eswc2006.org/technologies/ontology#Account to Has>

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<http://www.eswc2006.org/technologies/ontology#Has> .

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<http://www.eswc2006.org/technologies/ontology#character> .

<http://www.eswc2006.org/technologies/ontology#Carrying>

a <http://www.eswc2006.org/technologies/ontology#Relationship> .

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<http://www.eswc2006.org/technologies/ontology#Is Type> .

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a <http://www.eswc2006.org/technologies/ontology#Entity Concept> ;

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<http://www.eswc2006.org/technologies/ontology#item instantiation>

a <http://www.eswc2006.org/technologies/ontology#Entity Concept> .

<http://www.eswc2006.org/technologies/ontology#Character Max Mana>

a <http://www.eswc2006.org/technologies/ontology#Attribute Concept> ;

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<http://www.eswc2006.org/technologies/ontology#character> .

<http://www.eswc2006.org/technologies/ontology#Item Instantiation to Carrying>

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a <http://www.eswc2006.org/technologies/ontology#Attribute Concept> ;

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<http://www.eswc2006.org/technologies/ontology#account> .

<http://www.eswc2006.org/technologies/ontology#Concept>

a owl:Class .