

LAMPIRAN A – Ontologi

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<?xml version="1.0"?>
<rdf:RDF
  xmlns:protege="http://protege.stanford.edu/plugins/owl/protege#"
  xmlns:xsp="http://www.owl-ontologies.com/2005/08/07/xsp.owl#"
  xmlns:dc="http://purl.org/dc/elements/1.1/"
  xmlns:sun_java="http://java.sun.com/docs/books/tutorial#"
  xmlns:swrlb="http://www.w3.org/2003/11/swrlb#"
  xmlns:dcterms="http://purl.org/dc/terms#"
  xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:owl="http://www.w3.org/2002/07/owl#"
  xmlns:sqwrl="http://sqwrl.stanford.edu/ontologies/built-ins/3.4/sqwrl.owl#"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema#"
  xmlns:asal="http://www.domain2.com#"
  xmlns:swrl="http://www.w3.org/2003/11/swrl#"
  xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
  xmlns:default="http://www.owl-ontologies.com/OntologyTheThird.owl#"
  xmlns:swrla="http://swrl.stanford.edu/ontologies/3.3/swrla.owl#"
  xml:base="http://www.owl-ontologies.com/OntologyTheThird.owl">
  <owl:Ontology rdf:about="">
    <owl:imports rdf:resource="http://swrl.stanford.edu/ontologies/3.3/swrla.owl"/>
    <owl:imports
      rdf:resource="http://sqwrl.stanford.edu/ontologies/built-
ins/3.4/sqwrl.owl"/>
  </owl:Ontology>
  <owl:Class rdf:ID="DocumentType">
    <rdfs:subClassOf rdf:resource="http://www.w3.org/2002/07/owl#Thing"/>
    <rdfs:subClassOf>
      <owl:Restriction>
        <owl:allValuesFrom rdf:resource="#DocumentType"/>
        <owl:onProperty>
          <owl:ObjectProperty rdf:ID="subTypeOf"/>
        </owl:onProperty>
      </owl:Restriction>
    </rdfs:subClassOf>
  </owl:Class>
  <owl:Class rdf:ID="Document">
    <rdfs:subClassOf>
      <owl:Restriction>
        <owl:allValuesFrom>
          <owl:Class rdf:ID="Concept"/>
        </owl:allValuesFrom>
        <owl:onProperty>
          <owl:ObjectProperty rdf:about="http://purl.org/dc/elements/1.1/subject"/>
        </owl:onProperty>
      </owl:Restriction>

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</rdfs:subClassOf>
<rdfs:subClassOf rdf:resource="http://www.w3.org/2002/07/owl#Thing"/>
<rdfs:subClassOf>
  <owl:Restriction>
    <owl:onProperty>
      <owl:ObjectProperty rdf:about="http://purl.org/dc/terms#requires"/>
    </owl:onProperty>
    <owl:allValuesFrom rdf:resource="#Document"/>
  </owl:Restriction>
</rdfs:subClassOf>
<rdfs:subClassOf>
  <owl:Restriction>
    <owl:onProperty>
      <owl:ObjectProperty rdf:ID="hasType"/>
    </owl:onProperty>
    <owl:allValuesFrom rdf:resource="#DocumentType"/>
  </owl:Restriction>
</rdfs:subClassOf>
</owl:Class>
<owl:Class rdf:ID="Learner">
  <rdfs:subClassOf>
    <owl:Restriction>
      <owl:onProperty>
        <owl:ObjectProperty rdf:ID="ableToLearn"/>
      </owl:onProperty>
      <owl:allValuesFrom>
        <owl:Class rdf:about="#Concept"/>
      </owl:allValuesFrom>
    </owl:Restriction>
  </rdfs:subClassOf>
  <rdfs:subClassOf>
    <owl:Restriction>
      <owl:allValuesFrom>
        <owl:Class rdf:ID="Performance"/>
      </owl:allValuesFrom>
      <owl:onProperty>
        <owl:ObjectProperty rdf:ID="hasPerformance"/>
      </owl:onProperty>
    </owl:Restriction>
  </rdfs:subClassOf>
  <rdfs:subClassOf rdf:resource="http://www.w3.org/2002/07/owl#Thing"/>
</owl:Class>
<owl:Class rdf:about="#Performance">
  <rdfs:subClassOf>
    <owl:Restriction>
      <owl:allValuesFrom>

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    <owl:Class rdf:ID="Certificate"/>
  </owl:allValuesFrom>
  <owl:onProperty>
    <owl:ObjectProperty rdf:ID="certifiedBy"/>
  </owl:onProperty>
</owl:Restriction>
</rdfs:subClassOf>
<rdfs:subClassOf>
  <owl:Restriction>
    <owl:onProperty>
      <owl:ObjectProperty rdf:ID="learningCompetency"/>
    </owl:onProperty>
    <owl:allValuesFrom>
      <owl:Class rdf:about="#Concept"/>
    </owl:allValuesFrom>
  </owl:Restriction>
</rdfs:subClassOf>
<rdfs:subClassOf rdf:resource="http://www.w3.org/2002/07/owl#Thing"/>
<rdfs:subClassOf>
  <owl:Restriction>
    <owl:onProperty>
      <owl:ObjectProperty rdf:ID="learningExperienceIdentifier"/>
    </owl:onProperty>
    <owl:allValuesFrom rdf:resource="#Document"/>
  </owl:Restriction>
</rdfs:subClassOf>
</owl:Class>
<owl:Class rdf:ID="Institution"/>
<owl:Class rdf:about="#Concept">
  <rdfs:subClassOf rdf:resource="http://www.w3.org/2002/07/owl#Thing"/>
  <rdfs:subClassOf>
    <owl:Restriction>
      <owl:onProperty>
        <owl:ObjectProperty rdf:ID="subConceptOf"/>
      </owl:onProperty>
      <owl:allValuesFrom rdf:resource="#Concept"/>
    </owl:Restriction>
  </rdfs:subClassOf>
  <rdfs:subClassOf>
    <owl:Restriction>
      <owl:onProperty>
        <owl:ObjectProperty rdf:ID="isPrerequisiteOf"/>
      </owl:onProperty>
      <owl:allValuesFrom rdf:resource="#Concept"/>
    </owl:Restriction>
  </rdfs:subClassOf>

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</owl:Class>
<owl:Class rdf:ID="ConceptRole">
  <rdfs:subClassOf>
    <owl:Restriction>
      <owl:onProperty rdf:resource="#hasType"/>
      <owl:allValuesFrom>
        <owl:Class rdf:ID="ConceptRoleType"/>
      </owl:allValuesFrom>
    </owl:Restriction>
  </rdfs:subClassOf>
  <rdfs:subClassOf rdf:resource="http://www.w3.org/2002/07/owl#Thing"/>
  <rdfs:subClassOf>
    <owl:Restriction>
      <owl:onProperty>
        <owl:ObjectProperty rdf:ID="isPlayedBy"/>
      </owl:onProperty>
      <owl:allValuesFrom rdf:resource="#Concept"/>
    </owl:Restriction>
  </rdfs:subClassOf>
  <rdfs:subClassOf>
    <owl:Restriction>
      <owl:allValuesFrom rdf:resource="#Document"/>
      <owl:onProperty>
        <owl:ObjectProperty rdf:ID="isPlayedIn"/>
      </owl:onProperty>
    </owl:Restriction>
  </rdfs:subClassOf>
</owl:Class>
<owl:Class rdf:about="#Certificate">
  <rdfs:subClassOf rdf:resource="http://www.w3.org/2002/07/owl#Thing"/>
  <rdfs:subClassOf>
    <owl:Restriction>
      <owl:allValuesFrom rdf:resource="#Institution"/>
      <owl:onProperty>
        <owl:ObjectProperty rdf:ID="issuedBy"/>
      </owl:onProperty>
    </owl:Restriction>
  </rdfs:subClassOf>
</owl:Class>
<owl:Class rdf:about="#ConceptRoleType">
  <rdfs:subClassOf>
    <owl:Restriction>
      <owl:allValuesFrom rdf:resource="#ConceptRoleType"/>
      <owl:onProperty>
        <owl:ObjectProperty rdf:ID="subConceptRoleOf"/>
      </owl:onProperty>
    </owl:Restriction>
  </rdfs:subClassOf>

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    </owl:Restriction>
  </rdfs:subClassOf>
  <rdfs:subClassOf rdf:resource="http://www.w3.org/2002/07/owl#Thing"/>
</owl:Class>
<owl:ObjectProperty rdf:ID="hasPlay">
  <rdfs:range rdf:resource="#ConceptRole"/>
  <owl:inverseOf>
    <owl:ObjectProperty rdf:about="#isPlayedBy"/>
  </owl:inverseOf>
  <rdfs:domain rdf:resource="#Concept"/>
  <rdfs:subPropertyOf>
    <owl:ObjectProperty rdf:ID="link"/>
  </rdfs:subPropertyOf>
</owl:ObjectProperty>
<owl:ObjectProperty rdf:ID="isLearnedBy">
  <rdfs:range rdf:resource="#Learner"/>
  <rdfs:domain rdf:resource="#Concept"/>
  <owl:inverseOf>
    <owl:ObjectProperty rdf:ID="hasLearned"/>
  </owl:inverseOf>
</owl:ObjectProperty>
<owl:ObjectProperty rdf:about="#isPrerequisiteOf">
  <rdfs:domain rdf:resource="#Concept"/>
  <rdfs:range rdf:resource="#Concept"/>
  <owl:inverseOf>
    <owl:ObjectProperty rdf:ID="hasPrerequisite"/>
  </owl:inverseOf>
  <rdf:type rdf:resource="http://www.w3.org/2002/07/owl#TransitiveProperty"/>
</owl:ObjectProperty>
<owl:ObjectProperty rdf:about="#certifiedBy">
  <rdfs:range rdf:resource="#Certificate"/>
  <rdfs:domain rdf:resource="#Performance"/>
</owl:ObjectProperty>
<owl:ObjectProperty rdf:about="http://purl.org/dc/elements/1.1/subject">
  <rdfs:range rdf:resource="#Concept"/>
  <rdfs:domain rdf:resource="#Document"/>
</owl:ObjectProperty>
<owl:ObjectProperty rdf:about="#hasPerformance">
  <rdfs:domain rdf:resource="#Learner"/>
  <owl:inverseOf>
    <owl:ObjectProperty rdf:ID="isPerformanceOf"/>
  </owl:inverseOf>
  <rdfs:subPropertyOf rdf:resource="#link"/>
  <rdfs:range rdf:resource="#Performance"/>
</owl:ObjectProperty>
<owl:ObjectProperty rdf:about="#hasLearned">

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<rdfs:domain rdf:resource="#Learner"/>
<owl:inverseOf rdf:resource="#isLearnedBy"/>
<rdfs:range rdf:resource="#Concept"/>
</owl:ObjectProperty>
<owl:ObjectProperty rdf:about="#subTypeOf">
<rdfs:domain rdf:resource="#DocumentType"/>
<rdfs:range rdf:resource="#DocumentType"/>
</owl:ObjectProperty>
<owl:ObjectProperty rdf:about="#learningExperienceIdentifier">
<rdfs:subPropertyOf rdf:resource="#link"/>
<rdfs:range rdf:resource="#Document"/>
<rdfs:domain rdf:resource="#Performance"/>
</owl:ObjectProperty>
<owl:ObjectProperty rdf:about="#isPerformanceOf">
<owl:inverseOf rdf:resource="#hasPerformance"/>
<rdfs:range rdf:resource="#Learner"/>
<rdfs:subPropertyOf rdf:resource="#link"/>
<rdfs:domain rdf:resource="#Performance"/>
</owl:ObjectProperty>
<owl:ObjectProperty rdf:about="#isPlayedBy">
<owl:inverseOf rdf:resource="#hasPlay"/>
<rdfs:domain rdf:resource="#ConceptRole"/>
<rdfs:range rdf:resource="#Concept"/>
<rdfs:subPropertyOf rdf:resource="#link"/>
</owl:ObjectProperty>
<owl:ObjectProperty rdf:about="#subConceptRoleOf">
<rdfs:domain rdf:resource="#ConceptRoleType"/>
<rdfs:range rdf:resource="#ConceptRoleType"/>
</owl:ObjectProperty>
<owl:ObjectProperty rdf:about="#learningCompetency">
<rdfs:domain rdf:resource="#Performance"/>
<rdfs:range rdf:resource="#Concept"/>
</owl:ObjectProperty>
<owl:ObjectProperty rdf:about="#issuedBy">
<rdfs:domain rdf:resource="#Certificate"/>
<rdfs:range rdf:resource="#Institution"/>
</owl:ObjectProperty>
<owl:ObjectProperty rdf:about="#ableToLearn">
<rdfs:domain rdf:resource="#Learner"/>
<rdfs:range rdf:resource="#Concept"/>
</owl:ObjectProperty>
<owl:ObjectProperty rdf:about="#isPlayedIn">
<rdfs:domain rdf:resource="#ConceptRole"/>
<rdfs:range rdf:resource="#Document"/>
</owl:ObjectProperty>
<owl:ObjectProperty rdf:ID="hasDocumentType"/>

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<owl:ObjectProperty rdf:ID="homepage"/>
<owl:ObjectProperty rdf:about="#subConceptOf">
  <rdfs:domain rdf:resource="#Concept"/>
  <rdfs:range rdf:resource="#Concept"/>
</owl:ObjectProperty>
<owl:ObjectProperty rdf:about="#hasPrerequisite">
  <rdfs:range rdf:resource="#Concept"/>
  <rdf:type rdf:resource="http://www.w3.org/2002/07/owl#TransitiveProperty"/>
  <rdfs:domain rdf:resource="#Concept"/>
  <owl:inverseOf rdf:resource="#isPrerequisiteOf"/>
</owl:ObjectProperty>
<owl:ObjectProperty rdf:about="http://purl.org/dc/terms#requires">
  <rdfs:range rdf:resource="#Document"/>
  <rdfs:domain rdf:resource="#Document"/>
</owl:ObjectProperty>
<owl:DatatypeProperty rdf:ID="performanceValue">
  <rdfs:domain rdf:resource="#Performance"/>
  <rdfs:range rdf:resource="http://www.w3.org/2001/XMLSchema#float"/>
</owl:DatatypeProperty>
<owl:DatatypeProperty rdf:ID="nama">
  <rdfs:range rdf:resource="http://www.w3.org/2001/XMLSchema#string"/>
</owl:DatatypeProperty>
<owl:DatatypeProperty rdf:ID="namaConcept">
  <rdfs:domain rdf:resource="#Concept"/>
  <rdfs:range rdf:resource="http://www.w3.org/2001/XMLSchema#string"/>
</owl:DatatypeProperty>
</rdf:RDF>

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LAMPIRAN B – Data Instance

```

@prefix dc: <http://purl.org/dc/elements/1.1/> .
@prefix protege: <http://protege.stanford.edu/plugins/owl/protege#> .
@prefix xsp: <http://www.owl-ontologies.com/2005/08/07/xsp.owl#> .
@prefix dcterms: <http://purl.org/dc/terms#> .
@prefix sqwrl: <http://sqwrl.stanford.edu/ontologies/built-ins/3.4/sqwrl.owl#> .
@prefix asal: <http://www.domain2.com#> .
@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#> .
@prefix swrl: <http://www.w3.org/2003/11/swrl#> .
@prefix default: <http://www.owl-ontologies.com/OntologyTheThird.owl#> .
@prefix sun_java: <http://java.sun.com/docs/books/tutorial#> .
@prefix swrlb: <http://www.w3.org/2003/11/swrlb#> .
@prefix xsd: <http://www.w3.org/2001/XMLSchema#> .
@prefix owl: <http://www.w3.org/2002/07/owl#> .
@prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .
@prefix swrla: <http://swrl.stanford.edu/ontologies/3.3/swrla.owl#> .

```

default:Perf_Yohanes_3

```

a default:Performance ;
rdfs:label "Peformance untuk Konsep Logical" ;
default:isPerformanceOf default:Yohanes ;
default:certifiedBy default:K324SA33 ;
default:learningCompetency default:Logical ;
default:learningExperienceIdentifier default:Dokumen_2 ;
default:performanceValue "75.0"^^xsd:float .

```

default:Perf_Alex_2

```

a default:Performance ;
rdfs:label "Peformance Alex" ;
default:isPerformanceOf default:Alex ;
default:certifiedBy default:R322DE954 ;
default:learningCompetency default:Sorting_Algorithm ;
default:learningExperienceIdentifier default:Dokumen_1 ;
default:performanceValue "60.0"^^xsd:float .

```

default:Perf_Alex_1

```

a default:Performance ;
rdfs:label "Peformance Alex" ;
default:isPerformanceOf default:Alex ;
default:certifiedBy default:K123BD44 ;
default:learningCompetency default:OO_Class ;
default:learningExperienceIdentifier default:Dokumen_1 ;
default:performanceValue "80.0"^^xsd:float .

```



```

default:Perf_Yohanes_1
  a    default:Performance ;
  rdfs:label "Peformance untuk Konsep Kelas dalam Objek Oriented" ;
  default:isPerformanceOf default:Yohanes ;
  default:certifiedBy default:K123BD44 ;
  default:learningCompetency default:OO_Class ;
  default:learningExperienceIdentifier default:Dokumen_1 , default:Dokumen_2 ;
  default:performanceValue "70.0"^^xsd:float .

default:Perf_Yohanes_2
  a    default:Performance ;
  rdfs:label "Peformance untuk Konsep Inheritance dalam Objek Oriented" ;
  default:isPerformanceOf default:Yohanes ;
  default:certifiedBy default:K123BF23 ;
  default:learningCompetency default:OO_Inheritance ;
  default:learningExperienceIdentifier default:Dokumen_1 ;
  default:performanceValue "90.0"^^xsd:float .

default:Perf_Leony_1
  a    default:Performance ;
  rdfs:label "Peformance untuk Konsep Kelas dalam Objek Oriented" ;
  default:isPerformanceOf default:Leony ;
  default:certifiedBy default:K123BD44 ;
  default:learningCompetency default:OO_Class ;
  default:learningExperienceIdentifier default:Dokumen_1 ;
  default:performanceValue "88.0"^^xsd:float .

default:Perf_Mierna_1
  a    default:Performance ;
  rdfs:label "Peformance untuk Konsep Kelas dalam Objek Oriented" ;
  default:isPerformanceOf default:Mierna ;
  default:certifiedBy default:K123BD44 ;
  default:learningCompetency default:OO_Class ;
  default:learningExperienceIdentifier default:Dokumen_1 ;
  default:performanceValue "89.0"^^xsd:float .

default:Perf_Mierna_2
  a    default:Performance ;
  rdfs:label "Peformance untuk Konsep Logical" ;
  default:isPerformanceOf default:Mierna ;
  default:certifiedBy default:K324SA33 ;
  default:learningCompetency default:Logical ;
  default:learningExperienceIdentifier default:Dokumen_2 ;
  default:performanceValue "85.0"^^xsd:float .

```