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Software Engineering

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**2.6 Exercises**

**Exercise 2.6.1.** Consider the requirements below. Are these requirements written according to the syntax described in the ISO standard? If not, rewrite the requirement according to the syntax.

• The system shall be able to process at least 40 executing jobs at a time.

• The system shall provide the means for the resource provider to see on which project this resource is working.

• If one of the resource disappears while it was performing a job, the system should re-queue the job.

**Solutions:**

* The system shall be able to process at least 40 executing jobs at a time.

**Solution:**

The system **[Subject]** shall process **[Action]** at least 40 executing jobs **[Object]** at a time **[Constraint]**.

* The system shall provide the means for the resource provider to see on which project this resource is working.

**Solution:**

The system **[Subject]** shall provide **[Condition]** the means for the resource provider to see **[Action]** on which project **[Object]** this resource is working **[Constraint]**.

* If one of the resource disappears while it was performing a job, the system should re-queue the job.

**Solution:**

If one of the resource **[Object]** disappears **[Condition]** while it was performing a job **[Constraint]**, the system **[Subject]** should re-queue **[Action]** the job.

**Exercise 2.6.2.** Requirements must have several characteristics, for instance, verifiable, consistent. Consider the following requirements. These requirements are not written according to the correct syntax. Analyze them according to the characteristics of well-formed requirements described in Section 2.3 and rewrite them according to the syntax proposed by the ISO standard.

• The information which is stored on the database can be accessed by any standard computer on the Company network.

• In order to obtain a Company car sticker the person must have a valid Company

ID.

• The opening of the software shall take less than 3-4 seconds under normal working conditions.

• The user shall have access to French? English dictionary (this is outside the scope of the application). The user shall ask questions or propose suggestions for words translations by mailing to the administrators.

• The software will be available 24hrs 365d/year.

**Solutions:**

* The information which is stored on the database can be accessed by any standard computer on the Company network.

**Solution:**

Any standard computer **[Subject]** on the Company Network shall access **[Action]** the information **[Object]** stored in the database **[Constraint]**.

* In order to obtain a Company car sticker the person must have a valid Company ID.

**Solution:**

A person **[Subject]** shall have a valid **[Condition]** Company ID to obtain **[Action]** a Company car sticker **[Object]**.

* The opening of the software shall take less than 3-4 seconds under normal working conditions.

**Solution:**

* The opening **[Condition]** of the software **[Object]** shall take **[Action]** less than 3-4 seconds **[Constraint]**.
* The user shall have access to French? English dictionary (this is outside the scope of the application). The user shall ask questions or propose suggestions for words translations by mailing to the administrators.

**Solution:**

The user **[Subject]** shall ask questions and propose suggestions **[Action]** for words translations by mailing to the administrators **[Condition]**.

* The software will be available 24hrs 365d/year.

**Solution:**

The software **[Subject]** shall be available **[Condition]** all time in a year **[Constraint]**.