# SANSA RDF Layer

Created on Fri Feb 6 18:12:29 2021

@author: erce

*class* rdf.**Rdf**(*sparkContext*)

**count**()

Counts the triples in the Rdf object by using count function from SANSA RDF Layer.

**Returns:** **count** – Size of the triples that is read from the given file
**Return type:** int

**getTriplesAsArray**(*size=0*)

Gets the triples array with the given size from the triples that is read from the given file. Uses “take” function from SANSA RDF Layer.

**Parameters:** **size** (*int, optional*) – To return smaller array with given size or the whole array. The default is 0
**Returns:** **triples** – Triples that is taken from the given file
**Return type:** array

**initializeRdfReader**(*spark*)

Initializes RDFReader class from SANSA RDF Layer to be used to read triples or for extended usage with deeper SANSA knowledge

**Parameters:** **spark** (*SparkSession*) – SparkSession that was built with SANSA fat-jar and necessary configuration
**Returns:** **rdfReader** – RDFReader object from SANSA RDF Layer
**Return type:** RDFReader

**outputExceptionLog**(*functionName, exception*)

Exception function to print the exception and the function that throws the exception

**Parameters:**
- **functionName** (*string*) – Name of the function that throws the exception
- **exception** (*Exception*) – Exception object in Python

**printAttributesOfGivenObject**(*obj*)

Prints functions of the given object.

E.g.:
rdf.printAttributesOfGivenObject(rdf.packagesDict[“qualityassesment”])

**Parameters:** **obj** (*Object*) – Any object

**printRdfClassPackageList**()

Prints the SANSA RDF Package list that is loaded to this python wrapper.

E.g.:
rdf.packagesDict[“io”].RDFReader(spark)

**printRdfIOAttributes**()

Prints attributes of RDF/IO to see which functions can be used from SANSA rdf/io Package.

**printTripleObjectAttributes**()

Prints attributes of RDF Triple Object. It can be used to see the usable functions. It is possible to use functions directly with SANSA knowledge.

**printTriples**(*tripleArray*)

Prints triples as string with indexes from the given tripleArray.

**Parameters:** **tripleArray** (*array*) – Triple array

**readTriples**(*rdfReader, path*)

Reads triples by using RDFReader class from SANSA RDF Layer

**Parameters:**
- **rdfReader** (*RDFReader*) – RDFReader object from SANSA RDF Layer
- **path** (*string*) –
  Path to triple file in local machine or hadoop

  E.g.:
  file:///data/rdf.nt ===> Local machine

hdfs://localhost:54310/user/erce/rdf.nt ===> Hadoop

**saveAsTextFile**(*rdfObject*, *outputPath*)

Save triples as text file in small partitions. Uses “saveAsTextFile” from SANSA RDF Layer.

**Parameters:**

- **rdfObject** (*RDF Triple Object*) – Return object of SANSA RDF IO Package “rdf” function
- **outputPath** (*string*) –
  Output will be a directory with several text files

  E.g.:
  file:///output ===> Local machine
  hdfs://localhost:54310/user/erce/output ===> Hadoop