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Spring Boot 7AM

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Maven Sessions(3):

https://www.youtube.com/c/NareshIT/search?query=maven+raghu

Spring Boot 3 files

a. Starter class | Main class

b. Input files

application.propreties | application.yml (YAML)

c. Build File

Maven - pom.xml

Gradle- build.gradle

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application.yml

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=> It is used to represent key-val pairs

=> Similer to properties only

=> Concept is YAML (YAMaLian Language) and extension is .yml (in Boot).

=> In properties file, there can be duplicate levels in keys.

ex: my.app.id=10

my.app.code=A

my.app.cost=300.0

-> Here my.app is duplicated everytime.

=> To reduce duplicate levels use YAML.

Replace dot(.) with colon(:) and new line

Replace equals(=) with colon(:) and only one space [one space before value]

=> Provide space in next level of key (atleast one space, at most n spaces)

All levels of key must have same space count.

=> API: SnakeYaml is opensource 3rd party, it is used to read key: val pairs from YAML file

Spring boot is using this API and reading key: val pairs into Environment memory.

-----Examples-----------------------

a. application.properties

spring.ctx.code=NIT

spring.ctx.type=ACTIVE

spring.ds.model=ONE

spring.ds.grade=A

a. application.yml

spring:

ctx:

code: NIT

type: ACTIVE

ds:

model: ONE

grade: A

-----------List/Set/Array-------------

b. application.properties

my.app.subject[0]=ENG

my.app.subject[1]=MAT

my.app.subject[2]=SCI

b. application.yml

my:

app:

subject:

- ENG

- MAT

- SCI

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c. application.properties

code.model.status=ONE

spring.ds.grade=A

spring.ctx.service=TWO

code.model.format=TEN

spring.ctx.flte=active

spring.ds.mode=none

c. application.yml (no word should be repeated)

spring:

ctx:

service: TWO

flte: active

ds:

grade: A

mode: none

code:

model:

status: ONE

format: TEN

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================example code=================

1. Create one Spring Boot Starter project

Name : SpringBoot2YamlExOne

Dependencies: Lombok, Spring Configuration Processor

2. Runner class

package in.nareshit.raghu.runner;

import org.springframework.boot.CommandLineRunner;

import org.springframework.boot.context.properties.ConfigurationProperties;

import org.springframework.stereotype.Component;

import lombok.Data;

@Component

@Data

@ConfigurationProperties(prefix = "my.app")

public class MyDataRunner implements CommandLineRunner {

private Integer id;

private String code;

private Double cost;

@Override

public void run(String... args) throws Exception {

System.out.println(this);

}

}

3. application.yml

my:

app:

id: 10

code: NIT

cost: 500.0

\*) Note:

=> If we do not provide space before value, then all variables in code holds default values.

=> If we do not maintain proper spacing counts then Exception is raised by SnakeYAML

(ScannerException or ParserException)..etc

\*) Rename File in STS: (F2 or Fn+F2)

> Right click on Project > Refactor > Rename > Enter new name > Press OK

\*) Create new File

> Right click on src/main/resource > new > other > File > enter name

ex: application.yml > Finish

Q) Can we define both application.properties and application.yml in one project ?

A) YES. we can define both application.properties and application.yml under

one project (src/main/resource folder).

Q) If we define same key in both application.properties and application.yml

with different value? then which one is taken?

A) Priority is given to properties file only.

Q) performance wise which one is good application.properties and application.yml?

A) YAML only.

\*) If no.of keys are more (50 keys) then use YAML

If no.of keys are very less/less (10 keys) then use properties

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**YAML with Different Variable Types**

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We can read key: val from YAML file for all types given as

a. Primitive Type

key:<space>value

b. 1D Collection Type (List/Set/Array)

key:

- val1

- val2

- val3

\*) Here - indicates index, numbers auto generated based on positions.

c. 2D Collection Type (Map/Properties)

key:

mapKey:<space>mapVal

mapKey:<space>mapVal

d. HAS-A (Association Mapping) Type

hasAvariable:

variable:<space>value

variable:<space>value

------code---

1. Create Starter Project

Name : SpringBoot2YamTypeEx

Dependencies: Lombok, Spring Configuration Processor

2. Model class

package in.nareshit.raghu.model;

import lombok.Data;

//ctrl+shift+O

@Data

public class Vendor {

private String vcode;

private String addr;

}

3. Runner class:

package in.nareshit.raghu.runner;

import java.util.Map;

import org.springframework.boot.CommandLineRunner;

import org.springframework.boot.context.properties.ConfigurationProperties;

import org.springframework.stereotype.Component;

import in.nareshit.raghu.model.Vendor;

import lombok.Data;

//ctrl+shift+O

@Component

@Data

@ConfigurationProperties(prefix = "my.app")

public class ProductRunner implements CommandLineRunner {

private Integer pid;

private String pcode;

private Double pcost;

//private List<String> details;

//private Set<String> details;

private String[] details;

private Map<String,Integer> version;

//private Properties version;

private Vendor vob;

@Override

public void run(String... args) throws Exception {

System.out.println(this);

}

}

4. application.yml

my:

app:

pid: 10

pcode: AB

pcost: 25.0

details:

- D1

- D2

- D3

version:

V1: 3

V2: 9

V3: 6

vob:

vcode: VEN-ONE

addr: HYD

=> To run main class (ctrl+F11)

Q) How can we pass command line args using cmd prompt and STS?

A)