FROM TDD TO BDD AND BACK
HANDS ON LAB

BMI APPLICATION

Mieke Kemme and Elke Steegmans
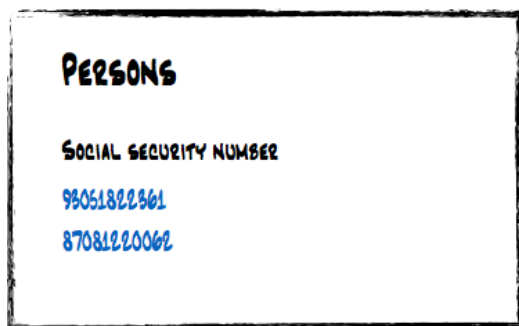Nov 10, 2015

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STORIES

SHOW PERSON OVERVIEW

NARRATIVE

In order to navigate to the data of a certain patient

As a caretaker

I want to see the list of all patients

MOCK-UP

Persons

Social security number

93051822361

87081220062

ACCEPTANCE CRITERIA

A list with the social security numbers of all patients is given

NARRATIVE

In order to monitor a person

As a caretaker

I can register a new patient

MOCK-UP

ACCEPTANCE CRITERIA

I can register the social security number, birthdate, gender

I can register the length, weight and date of the first examination

An error message is given if not all fields are provided

An error message is given if invalid data is provided:

- Birthdate should not be in the future
- Length should be between 50 and 300 cm
- Weight should be between 300 and 700000 gr
- Examination date should not be in the future

SHOW PATIENT DETAILS

NARRATIVE

In order to check the physical condition of a patient

As a caretaker

I want to consult his/her personal details

MOCK-UP

ACCEPTANCE CRITERIA

The social security number, birthdate, gender, length, weight, examination date and bmi are given

The physical data of the most recent examination are given

The bmi is rounded to 2 digits

An error message is given if the patient cannot be found

NARRATIVE

In order to track the physical condition of a patient

As a caretaker

I want to register the data of a new physical examination

MOCK-UP

ACCEPTANCE CRITERIA

I can register the length, weight and date of the examination

An error message is given if not all fields are provided

A patient cannot have more than one examination for a given date

An error message is given if an invalid data is provided:

- Length should be between 50 and 300 cm
- Weight should be between 300 and 700000 gr
- Date should not be in the future

CLASS DIAGRAMS

DOMAIN

<<Java Class>>
Examination
org.ucll.demo.domain

- serialVersionUID: long = 1L
- MAXIMUM_LENGTH: int = 300
- MAXIMUM_WEIGHT: int = 700000
- MINIMUM_WEIGHT: int = 20000
- MINIMUM_LENGTH: int = 50
- length: int
- weight: int
- date: Date

- Examination()
- Examination(int,int)
- Examination(int,int,Date)
- getLength():int
- setLength(int):void
- getWeight():int
- setWeight(int):void
- getDate():Date
- setDate(Date):void
- getBmi():double
- equals(Object):boolean
- toString():String
- compareTo(Examination):int

<<Java Enumeration>>
Gender
org.ucll.demo.domain

- MALE: Gender
- FEMALE: Gender
- Gender()

-gender 0..1

-examinations
0..*

<<Java Class>>
Person
org.ucll.demo.domain

- serialVersionUID: long = 1L
- socialSecurityNumber: String
- birthDate: Date

- Person()
- Person(String,Date,Gender,Examination)
- addExamination(Examination):void
- removeExamination(Examination):void
- getLastExamination():Examination
- getBmi():double
- equals(Object):boolean
- toString():String
- getSocialSecurityNumber():String
- setSocialSecurityNumber(String):void
- getGender():Gender
- setGender(Gender):void
- getBirthDate():Date
- setBirthDate(Date):void
- getNumberOfExaminations():int
- getLength():int
- getWeight():int
- getLastExaminationDate():Date
- getExaminations():TreeMap<Date,Examination>

<<Java Class>>
PersonService
org.ucll.demo.service

- PersonService(PersonRepository)
- addPerson(Person):void
- addExamination(Examination,String):void
- getPerson(String):Person
- getAverageBmi():double
- getPersons():List<Person>
- deletePerson(String):void
- setPersonRepository(PersonRepository):void
- getPersonRepository():PersonRepository

-personRepository 0..1

<<Java Interface>>
PersonRepository
org.ucll.demo.repository

- add(Person):void
- update(Person):void
- getAll():List<Person>
- get(String):Person
- delete(Person):void
- delete(String):void

-db
0..*

<<Java Class>>
PersonStubRepository
org.ucll.demo.repository

- PersonStubRepository()
- add(Person):void
- update(Person):void
- getAll():List<Person>
- get(String):Person
- delete(Person):void
- delete(String):void

<<Java Class>>
ⓖ PersonServiceJavaApi
org.ucll.demo.service.api.java

- personService: PersonService

- PersonServiceJavaApi()
- PersonServiceJavaApi(PersonRepository)
- PersonServiceJavaApi(PersonService,ExaminationToAssembler,PersonToAssembler)
- addPerson(PersonDetail):void
- addExamination(ExaminationDetail,String):void
- getPerson(String):PersonDetail
- getAverageBmi():double
- getPersons():List<PersonOverview>
- deletePerson(String):void
- getPersonService():PersonService
- setPersonService(PersonService):void

<<Java Class>>
ⓖ PersonOverview
org.ucll.demo.service.api.java.to

- socialSecurityNumber: String

- PersonOverview()
- PersonOverview(String)
- getSocialSecurityNumber():String
- setSocialSecurityNumber(String):void
- toString():String

<<Java Class>>
ⓖ PersonDetail
org.ucll.demo.service.api.java.to

- gender: Gender = Gender.MALE
- birthdate: Date = new Date()
- bmi: double

- PersonDetail()
- PersonDetail(String,Gender,Date)
- PersonDetail(String,Gender,Date,ExaminationDetail)
- PersonDetail(String,Gender,Date,double,ExaminationDetail)
- getGender():Gender
- setGender(Gender):void
- getBirthdate():Date
- setBirthdate(Date):void
- getBmi():double
- setBmi(double):void
- getExaminationDetail():ExaminationDetail
- setExaminationDetail(ExaminationDetail):void

-personToAssembler 0..1

<<Java Class>>
ⓖ PersonToAssembler
org.ucll.demo.service.api.java.assembler

- PersonToAssembler()
- createPersonDetailTo(Person):PersonDetail
- createPersonOverviewTos(List<?>):List<PersonOverview>
- createPerson(PersonDetail):Person

-examinationDetail 0..1

<<Java Class>>
ⓖ ExaminationDetail
org.ucll.demo.service.api.java.to

- length: int
- weight: int
- examinationDate: Date = new Date()

- ExaminationDetail()
- ExaminationDetail(int,int)
- ExaminationDetail(int,int,Date)
- getLength():int
- setLength(int):void
- getWeight():int
- setWeight(int):void
- getExaminationDate():Date
- setExaminationDate(Date):void

-examinationToAssembler 0..1

<<Java Class>>
ⓖ ExaminationToAssembler
org.ucll.demo.service.api.java.assembler

- ExaminationToAssembler()
- createExaminationDetailTo(int,int,Date):ExaminationDetail
- createExaminationDetailTo(Examination):ExaminationDetail
- createExamination(ExaminationDetail):Examination

0..1

-examinationToAssembler