

Universitat de Lleida
Escola Politècnica Superior



Marter's Final Project

Automation of analysis of comments from the UdL surveys

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01 INTRODUCTION

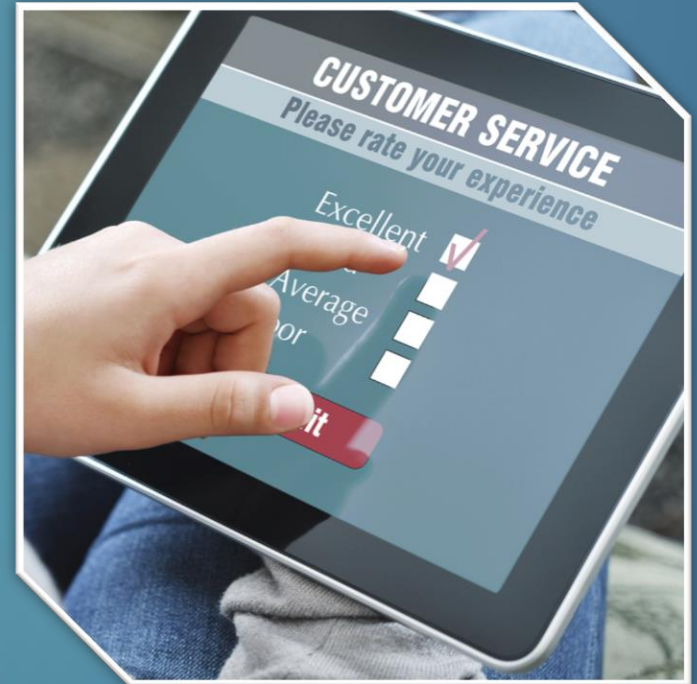
Every year the **University of Lleida**, in particular the **Quality and Teaching Planning** unit conducts a lot of satisfaction **surveys** addressed to students, professors, staff, etc.

These surveys include:

- Closed questions with valuation from 1 to 5
- Free text comments

Problem: some of the comments include **offensive expressions**, descriptions of conflicts, errors in professors' scheduling, etc.

I developed an **application** to process these comments.



01 OBJECTIVES



The main objectives of the application are:

- ✓ Importation of surveys and comments
- ✓ Use of Artificial Intelligence (AI) and Natural Language Processing (NLP) to analyze the comments.
- ✓ Visualization of results and manual edition of comments.

Other objectives:

- ❖ Use an Agile methodology: **Behaviour Driven Development** (BDD)
- ❖ Test a framework of web development: **Django** and Python
- ❖ Explore Natural Language Processing: **Spacy** library

01 QUATIFYCATION (by academic year)

75,000

Surveys

14,000

Comments

350
(2.5%)

Issues



INTRODUCTION **01**

**NATURAL LANGUAGE
PROCESSING** **02**

**METHODOLOGY AND
SCHEDULING** **03**

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04 **DEVELOPMENT**

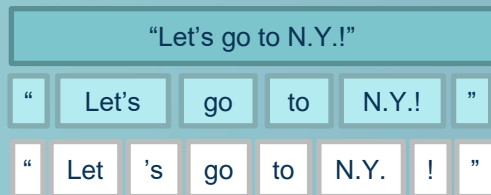
05 **CONCLUSIONS**

02

NATURAL LANGUAGE PROCESSING

TOKENIZATION

Segmentation of text into words, punctuations and stop words.



Subfield of Artificial Intelligence which studies how computers process and analyze large amounts of natural language data.

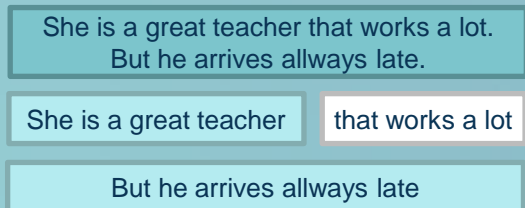
PART-OF-SPEECH

Deduction of word’s type, genre, number, etc. Also known as ‘Linguistic annotations’

Token	No	he	tratado	con	él
POS	Adv	Aux	Verb	Adp	Pron
Tags	Neg	Sing 1Pers present	Past, Part	Prep	Masc Sing 3Pers

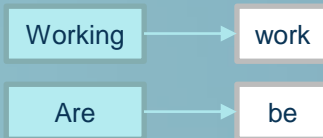
SENTENCE DETECTION

Finding and segmenting individual sentences.



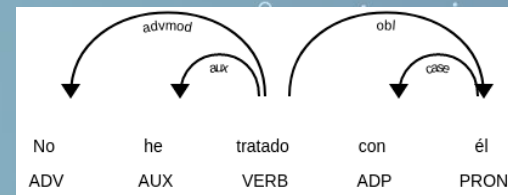
LEMMATIZATION

Extraction of the base form from a word.



DEPENDENCY PARSING

Detection of the relation between words in the sentence.



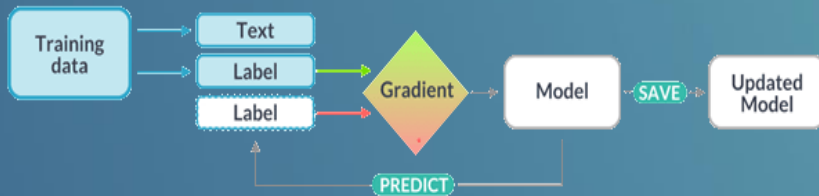
02 NATURAL LANGUAGE PROCESSING



TEXT CLASSIFICATION

Process of categorizing text into different groups using a set of sample text labeled by a user and using an statistical model.

- Estimation of weight values base on examples.
- Comparison between estimation and labels.
- Measure of gradient to valuate result.
- Iterative re-estimation of weights.



RULE-BASED MATCHING

Process of defining patterns based on the contents and grammar of the sentence to identify text that match with defined patterns. It's based in Part-of-speech and Dependency Parsing and it's also called as Pattern Matching.

Regular expressions

Lower case of word contains 'profes'

Use of lemmas

Lemma of word is 'teach'

Words position

Sentence starts with word of pattern 'A'

Use of grammar

The first word it's a noun followed by an adjective

Use of dependencies

Subject of sentence is 'profe' and verb is 'teach' and object is 'student'

02

NATURAL LANGUAGE PROCESSING

Use cases:



**Speech
recognition**



**Word sense
disambiguation**



**Natural language
generation**

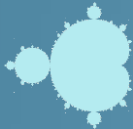


**Sentiment
analysis**

Tools or libraries:



**Natural Language
Toolkit (NLTK)**



TextBlob



Stanford Core NLP



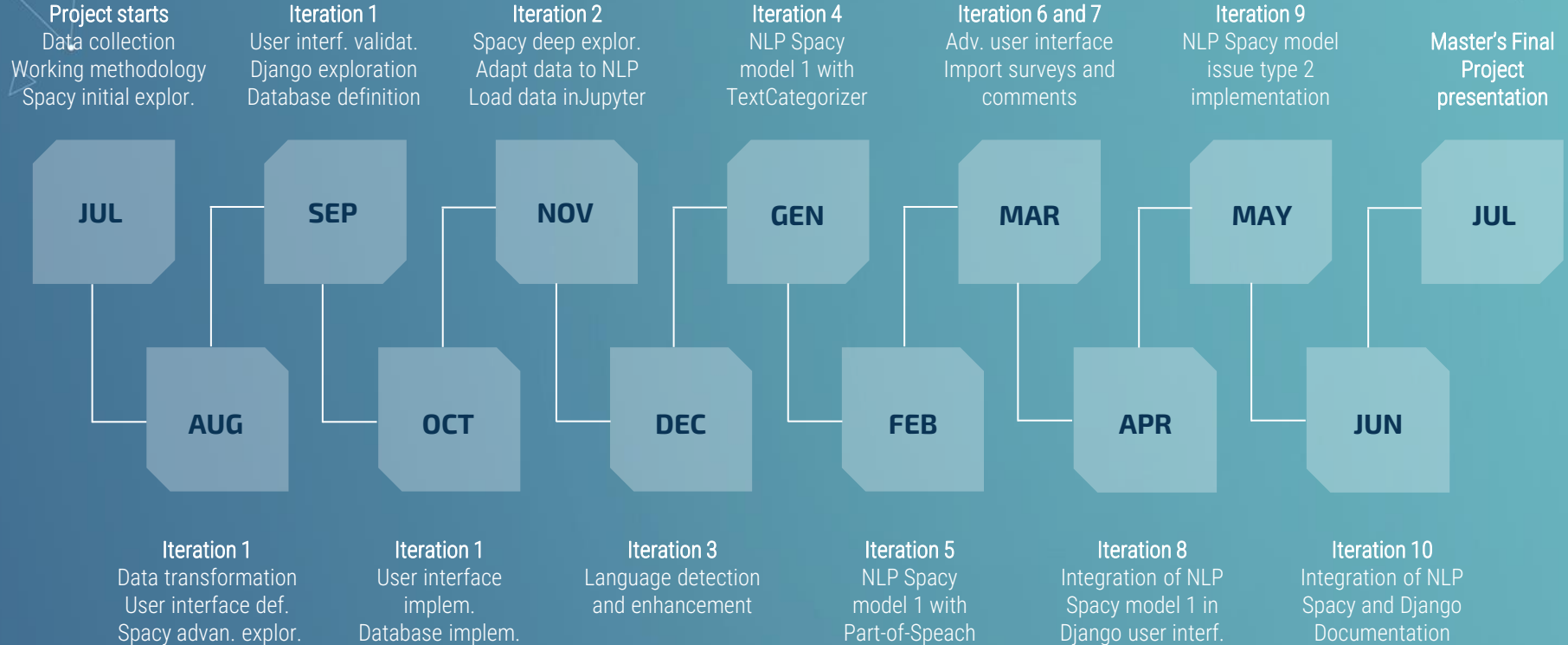
Allen NLP

spaCy

**spaCy - Industrial-
Strength NLP**

03

METHODOLOGY AND SCHEDULING





04 DEVELOPMENT

Iteration 1. User interface definition

Iteration 2. Load of sample files and language detection

Iteration 3. Analysis and improvement of language detection

Iteration 4. NLP Spacy model 1. Issue 'No ha impartit clase'. Option 'TextCategorizer'

Iteration 5. NLP Spacy model 1. Option 'Parts-of-speech'

Iteration 6. User interface implementation

Iteration 7. Import surveys and comments

Iteration 8. Integration of Spacy model 1 in Django user interface

Iteration 9. NLP Spacy model 2. Issue 'Comentari problemàtic'

Iteration 10. Integration of Spacy model 2 in Django user interface



Iteration 1. User interface definition

Original system

Gestor campañas (OCU)



Lime Survey (Open source)

LiveSurvey

Administración - Sesión iniciada con éxito ✓

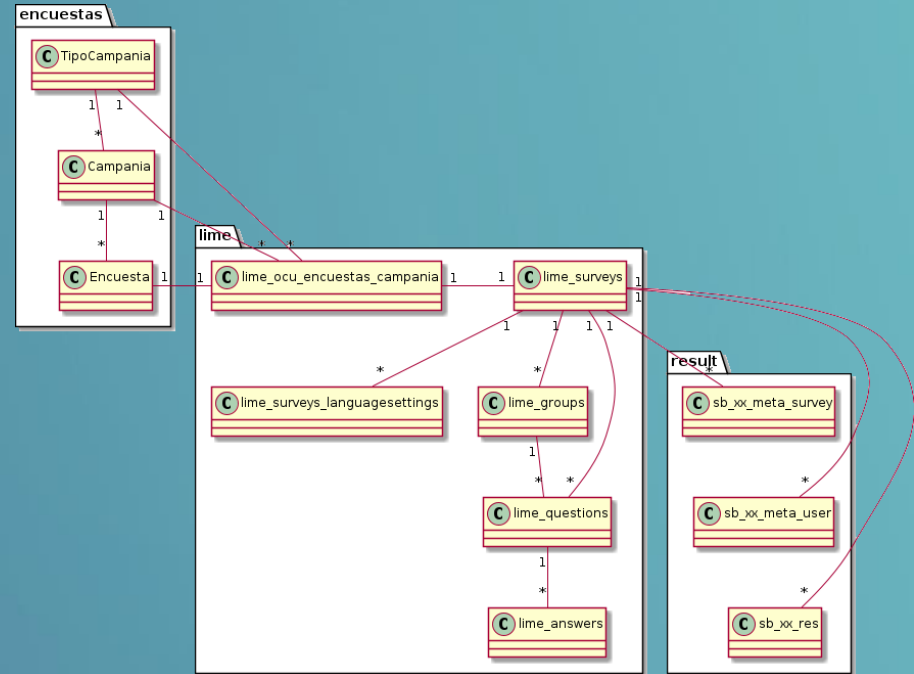
Campañas: Tries... [iconos]

Encuestas

Página 1 de 429 [25] Visualizar 1 - 25 de 10.718

ID	ID Encuesta	Encuesta	Data de creació	Propietari	Acció	Campagne	Respostes enviades	Complet	Parcial	Total	Tickets d'avisos	Porcentaje de respuestas
[icono]	11111	PLT Assignatura-Professor GRAUS	08.10.20	admin	(Modificar)	Overt	Si					
[icono]	11111	Encuesta sobre la assignatura 101333	N 29.11.20	admin	(Modificar)	Tancat	20-21 Assignata	Si	7	0	7	19
[icono]	11111	Encuesta sobre la assignatura 100878	N 30.04.20	admin	(Modificar)	Tancat	19-20 Assignata	Si	33	7	40	87
[icono]	11111	Encuesta sobre la assignatura 800025	L 16.12.20	admin	(Modificar)	Tancat	20-21 Assignata	Si	13	0	13	25
[icono]	11111	Encuesta sobre la assignatura 100126	H 29.11.20	admin	(Modificar)	Tancat	20-21 Assignata	Si	6	0	6	10
[icono]	11125	Encuesta de satisfacció sobre PRACTIC	06.07.20	admin	(Modificar)	Tancat	17-18 Practicac	Si	3	0	3	27
[icono]	11125	Encuesta sobre la assignatura 800023	A 30.04.20	admin	(Modificar)	Tancat	19-20 Assignata	Si	0	0	0	2
[icono]	11135	Encuesta als titulados en MU en Ed	23.11.20	admin	(Modificar)	Tancat	14-15 Titulat	M	3	0	3	15
[icono]	11139	Encuesta als directores de tesi sobre	03.02.20	admin	(Modificar)	Tancat	19-20 Doctorat	Si	1	0	1	2
[icono]	11142	Encuesta sobre la assignatura 102381	B 05.12.20	admin	(Modificar)	Tancat	19-20 Assignata	Si	16	1	17	20

Database (MySQL)



04 DEVELOPMENT

Iteration 1. User interface definition Behaviour Driven Development (BDD)

List of features:

Authenticate

List campaigns

List survey comments

View survey comment

Edit comment

Import surveys

Process comments

Example of feature

Feature: List Campaigns
In order to list the campaigns imported from Lime
As a user
I want to see a list of all imported campaigns

Example of scenario

Background: There is a registered user
Given Exists a user "user" with password "password"
Scenario: Select a campaign from a list
Given I login as user "user" with password "password"
And A set of campaigns had been imported from Lime
| cod_campanya_lime | fecha_extraccio_lime | name | type_campaign_id |
| 101 | 2019-10-18 | 18-19 Assignatura-professor màsters P 1r S | 25 |
When I list the campaigns
Then I'm viewing a list of campaigns
| Codi campanya | Nom campanya | Codi tipus campanya | Data extracció |
| 168 | 19-20 Pràctiques externes-estudiantat (GEM-1P) | 9 | 2020-11-17 |

04 DEVELOPMENT

Iteration 1. User interface definition

Authentication:

Universitat de Lleida Enquesta virtual Anàlisi i revisió de comentaris

Selecció de campanya:

Mostrar 10 registres

Cod. campanya	Nom campanya	Tipus Campanya	Data extracció
101	18-19 Assignatura-professor màsters P 1r S	Enquesta assignatura-professor grau i màster univ	2019-10-18 12:45:32
102	18-19 Assignatura-professor màsters NP 1r S	Enquesta assignatura-professor grau i màster univ	2019-04-10 13:49:19
103	18-19 Assignatura-professor INEFC 1r S	Enquesta assignatura-professor grau i màster univ	2019-04-10 14:53:01
105	18-19 Títulats Grau AQU	Enquesta de final de programa - Grau	2020-02-03 14:06:27
106	18-19 Títulats Doble Grau AQU	Enquesta de final de programa - Grau	2020-02-03 14:16:32
108	18-19 Doctoral - Estudiantat doctor	Enquesta de doctoral - Estudiantat doctor	2020-02-03 14:22:22
109	18-19 Pràctiques externes - estudiantat (GEM - 1P)	Enquesta de Pràcticum - Estudiantat	2019-03-07 12:26:10
110	18-19 Títulats de Màster AQU	Enquesta de final de programa - Màster AQU	2020-02-03 14:20:13
111	18-19 Títulats formació continua 1r P	Enquesta de formació continua	2020-01-28 13:55:27
112	18-19 Assignatura-professor màsters P 2n S	Enquesta assignatura-professor grau i màster univ	2019-09-25 10:46:34

Mostrant registres del 1 al 10 de un total de 64 registres

Autor: 1 2 3 4 5 6 7 Següent

Universitat de Lleida - Màster en Enginyeria Informàtica - Treball Final de Màster - David Sánchez Martí

List campaigns

List survey comments

Process comments

Edit survey comment

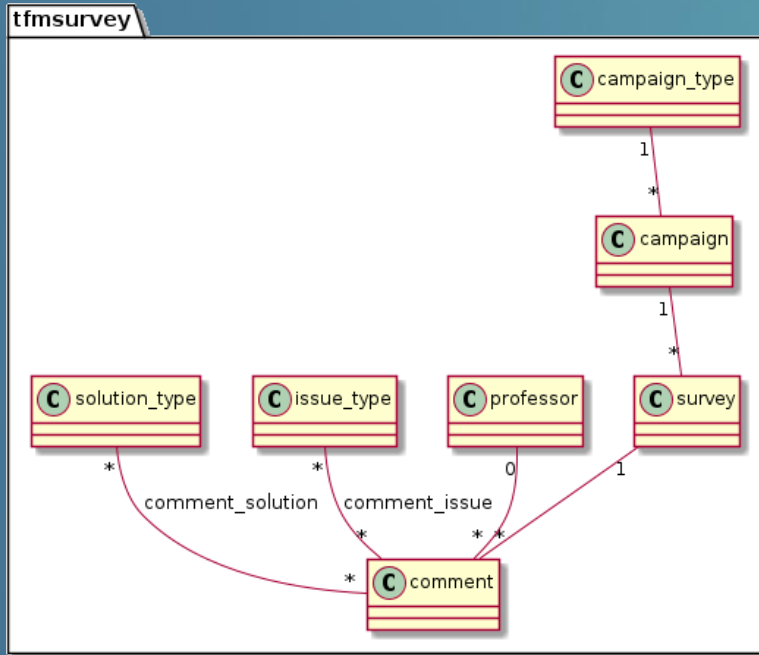
View survey comment

Import surveys

04 DEVELOPMENT

Iteration 1. User interface definition

Database (MySQL)

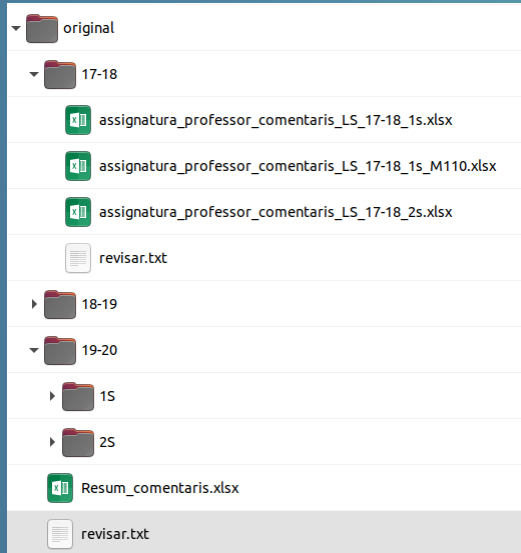


Issue types

- The professor has not taught this group
- Problematic comments
- Offensive comments
- Professor comment on subject question
- Subject comment in professor question
- Spelling mistakes
- Exclamation points and excessive emoticons

04 DEVELOPMENT

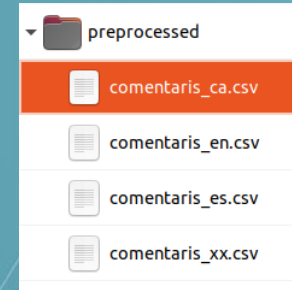
Iteration 2 and 3. Load sample files and language detection Implementation



Load_data.ipynb
(Jupyter Notebook)

LanguageDetector
PyCld2

Python 3.8
Jupyter 6.1.4
Pandas 1.1.3
Spacy 2.3
PyCld2 0.41



04

DEVELOPMENT

Iteration 2 and 3. Load sample files and language detection Results

Comments by year:

Academic year	Total	Percentage
2017-18	90	1,14%
2018-19	1,468	18,56%
2019-20	6,353	80,31%
Total	7,911	

Comments by issue type:

Issue type	Total	%
Comentari problemàtic	271	53.88%
No ha impartit classe a aquest grup	115	22.86%
Comentari de professor	53	10.54%
Faltes d'ortografia	18	3.58%
Canvi de professor	17	3.38%
Comentari ofensiu	11	2.19%
Comentari d'assignatura	7	1.39%
Duplicar a professor	5	0.99%
Comentari excel·lent	4	0.80%
Exclamacions o emoticones excessius	2	0.40%
Total	503	

04 DEVELOPMENT

Iteration 2 and 3. Load sample files and language detection Language enhancement

Language libraries comparative

	Idioma PyCld2				
Idioma Spacy	ca	es	en	xx	Total
ca	5,815	11	141	31	5,998
es	16	1,297	19	13	1,345
en	60	8	239	25	324
xx	68	28	30	55	181
Total	5,959	1,336	429	124	7,848

Divergence: **497** **6,3%**

Decision table

	Idioma PyCld2			
Idioma Spacy	ca	es	en	xx
ca	ca	ca	ca	ca
es	ca	es	es	es
en	ca	es	en	ca
xx	ca	es	ca	ca/es

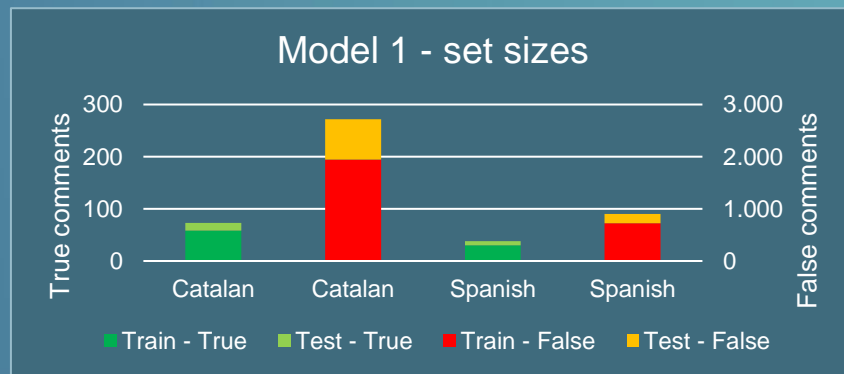
Comment by language

ca	es	en	xx
6,197	1,365	239	55
78.9%	17.4%	3.0%	0.7%

04 DEVELOPMENT

Iteration 4. NLP Spacy model 1. Issue 'No ha impartit classe' - Option 'Text classification' Load data

- Only models to Catalan and Spanish languages
- Only questions about professors
- Division of comments in training and test sets:
80% / 20%
- Inclusion of all the positive cases
- Division of sets in positive and negative cases
- Selection of a subset of negative cases



04

DEVELOPMENT

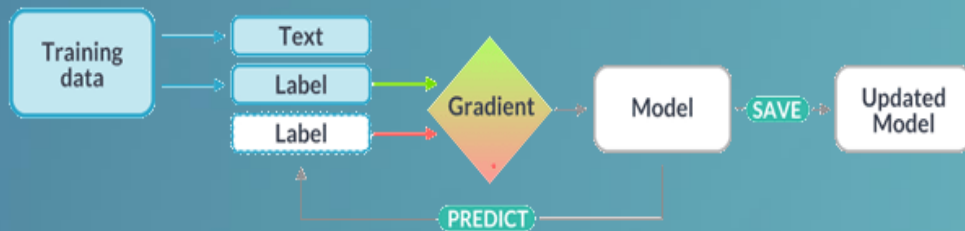
Iteration 4. NLP Spacy model 1. Issue

'No ha impartit clase' - Option 'Text classification'
Train model

model_no_classe_lang_2.ipynb

TextCategorizer

- Limited training data
- Loop until Gradient < 0.001
- Creation of subsets of data (batches):
 - ✓ Compounding
 - ✓ Minibatch
 - ✓ Shuffle



04

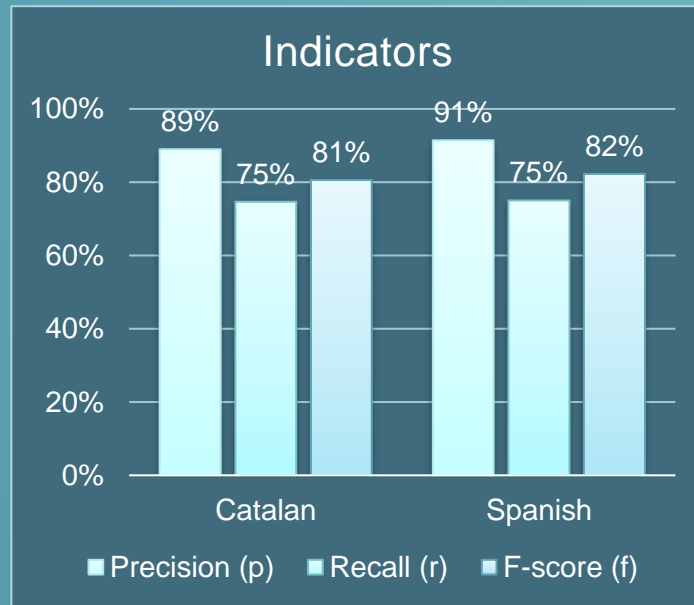
DEVELOPMENT

NLP Spacy model 1. Issue

'No ha impartit classe' - Option 'Text classification'
Evaluate

Confusion table:		User label	
		Positive	Negative
Prediction	Positive	True positives (TP)	False Positives (FP)
	Negative	False negatives (FN)	True negatives (TN)

Indicators	Precision (P) = $\frac{TP}{TP + FP}$
	Recall (R) = $\frac{TP}{TP + FN}$
	F-score (F) = $\frac{2 * P * R}{P + R}$



04

DEVELOPMENT

Iteration 5. NLP Spacy model 1 Option 'Rule-based matching'

model_1_no_classes_part-of-speech_train.ipynb
model_1_no_classes_part-of-speech_evaluate.ipynb

Matcher

Based on Part-of-speech and Dependency parser

Transitive verbs:

- Starts with negative adverb
- Contain a verb from the verbs_trans list
- Follows a noun from the noms_trans list

Non-transitive verbs:

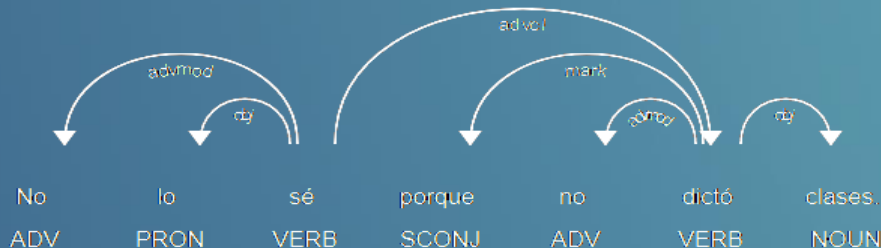
- Starts with negative adverb
- Contain a verb form the verbs list

Rule for transitive verb:

```
adv_negs = ["no", "tampoco"]  
verbs = ["tratar", "ir", "conocer", "ver", "saber", "ser", "aparecer", "tener"]  
verbs_trans = ["realizar", "dar", "recibir", "dictar"]  
noms_trans = ["clase", "asignatura"]
```

Example: "No ha realizado clases"

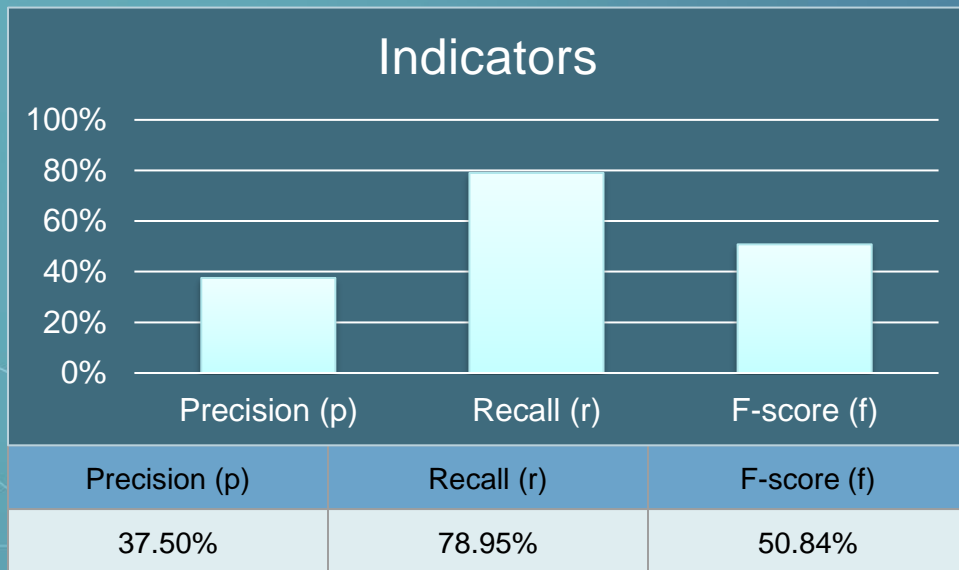
```
pattern = [{"POS": "ADV", "LOWER": {"IN": adv_negs}}, {"OP": "*"},  
{"DEP": "ROOT", "POS": "VERB", "LEMMA": {"IN": verbs_trans}},  
{"OP": "*"}, {"POS": "NOUN", "LEMMA": {"IN": noms_trans}}]
```



04

DEVELOPMENT

Iteration 5. NLP Spacy model 1
Option 'Rule-based matching'



04 DEVELOPMENT

Iteration 9. NLP Spacy model 2 Issue 'Comentari problemàtic'

Characteristics:

- Long comments with more than one sentence
- Don't follow a clear pattern or regular expressions
- Only Catalan and Spanish languages

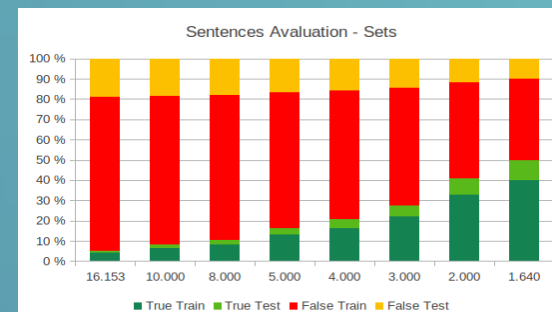
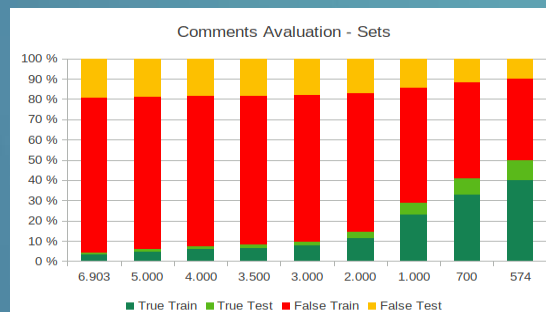
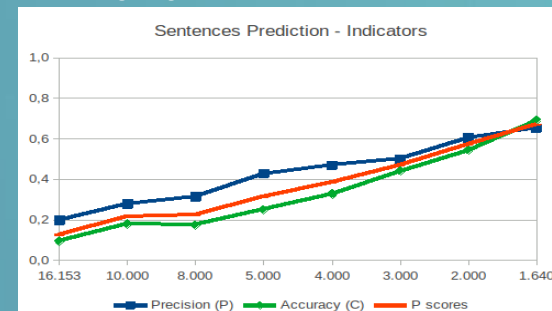
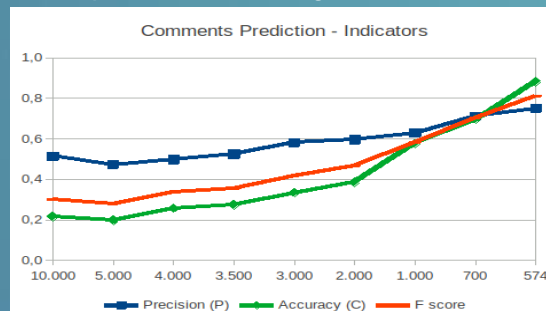
Options:

- Strategy: Full comments vs Individual sentences
- Sets size: Training vs test and Positive vs negative
- Pre-trained model: Large or small models

Conclusion:

- Full comments
- 700 comments (40% positives)

Comparative of strategies and set sizes. Catalan languages

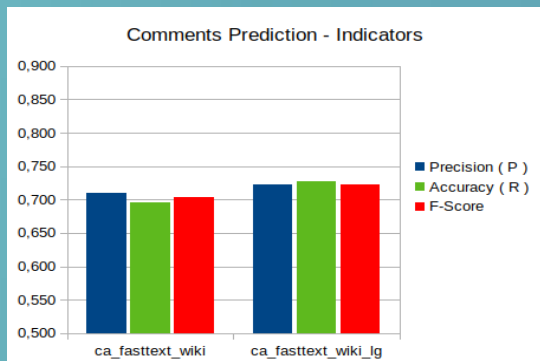


04

DEVELOPMENT

Iteration 9. NLP Spacy model 2 Issue 'Comentari problemàtic'

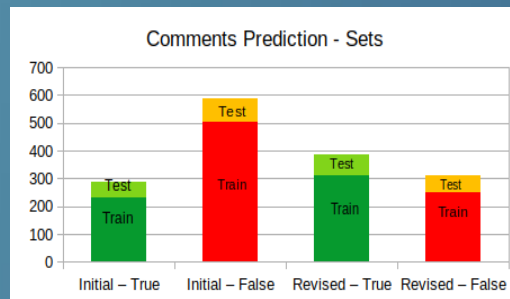
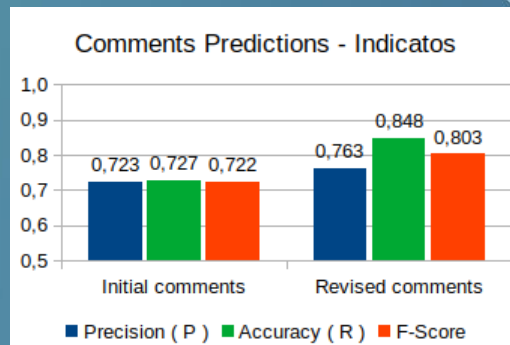
Comparative of pre-trained models



False positives problem:

- Most of the False positives could be True positives
- Reclassification of False positives comments: 100 new positives
- Results:
Accuracy increase 8%
F-score: 12%

Results of comments revision



04

DEVELOPMENT

Iteration 9. NLP Spacy model 2

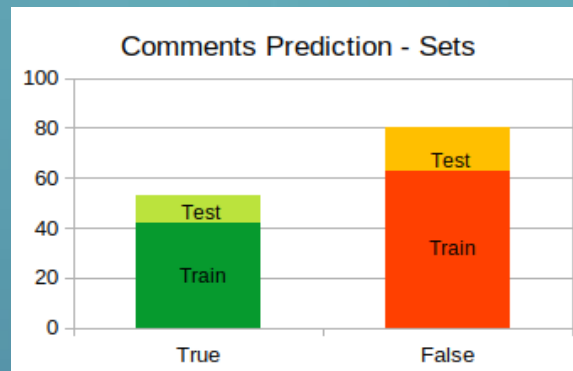
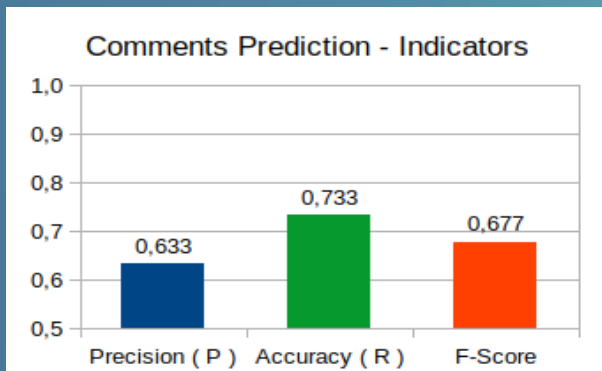
Issue 'Comentari problemàtic'

Spanish language

❖ Only 53 positives comments

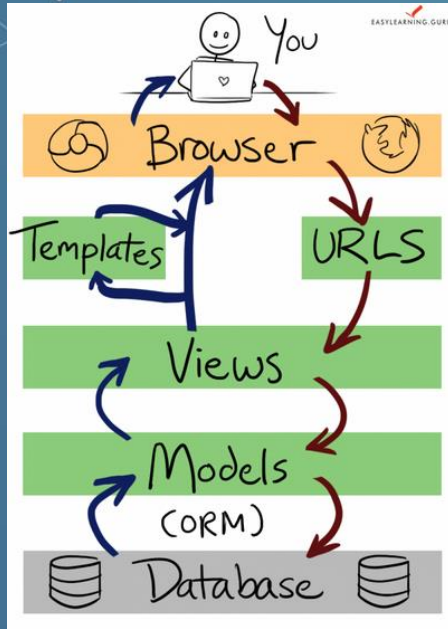
Parameters:

- Full comments analysis
- 40% positive cases
- Set size: 133 comments
- Large pre-trained model



04 DEVELOPMENT

Iteration 6. User interface implementation Django framework



Django is a high-level Python web framework that provide a lot of infrastructure and tools to help in the development.

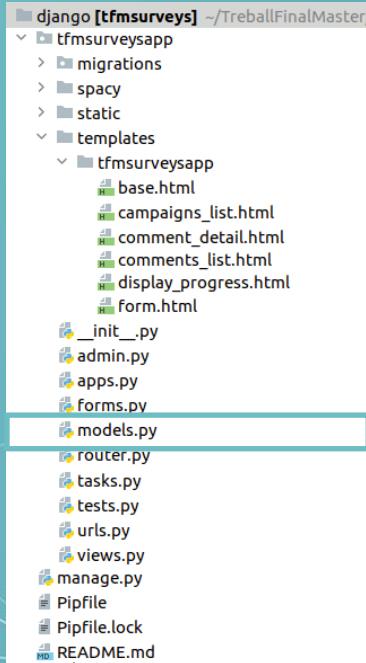
His basic components are:

- Models: Definition of the objects and properties corresponding to the tables and fields of the database.
Automate the management between the application and the database
- URLs: External addresses accessed by the user.
This component redirects to the real pages and manage the parameters
- Views: Responsible of executing the logic of the application. It obtains the information from Models, redirect to URLs and send results to them.
- Templates: Html pages with the format of the pages. They will be mixed with the information from views and can include other templates.

04 DEVELOPMENT

Iteration 6. User interface implementation

Models



/tfmsurveysapp/models.py

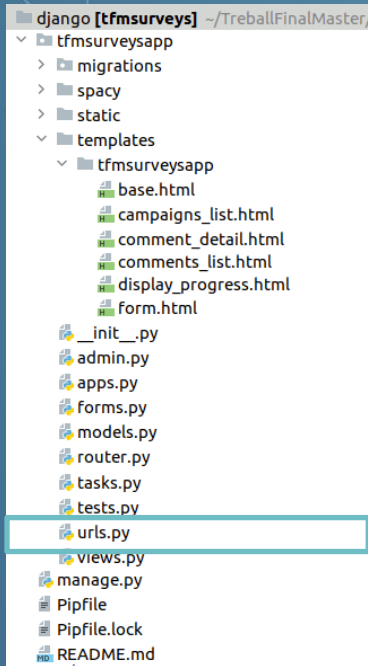
```
class CampaignType(models.Model):  
    ...  
class Campaign(models.Model):  
    ...  
class Survey(models.Model):  
    ...  
class Professor(models.Model):  
    ...  
class IssueType(models.Model):
```

```
    ...  
class SolutionType(models.Model):  
    ...  
class Comment(models.Model):  
    ...  
class CommentIssue(models.Model):  
    ...  
class CommentSolution(models.Model):  
    ...
```

```
class Campaign(models.Model):  
    type_campaign = models.ForeignKey(CampaignType, on_delete=models.CASCADE)  
    cod_campania_lime = models.IntegerField("Codi campania Lime")  
    fecha_extraccio_lime = models.DateField("Data extracció Lime")  
    name = models.CharField("Nom", max_length=50)  
    import_date = models.DateField("Data importació")  
    estat = models.CharField("Estat", max_length=50, null=True)  
    subestat = models.CharField("Subestat", max_length=50, null=True)
```

04 DEVELOPMENT

Iteration 6. User interface implementation URLs



Examples of urls

List campaigns:

`http://localhost/tfmsurveys/campaigns/`

List survey comments:

`http://localhost/tfmsurveys/campaigns/22/`

Campaign code=22

View survey comment:

`http://localhost/tfmsurveys/campaigns/22/23405/`

Campaign code=22, Comment code=22

/tfmsurveysapp/urls.py

```
path('campaigns/<int:cod_campania_lime>',  
      CommentsList.as_view(),  
      name='comments_list'),
```

04 DEVELOPMENT

Iteration 6. User interface implementation

Views

View's example 1

```
def campaigns_list(request):
    campaigns_list=Campaign.objects.all()
    context = {'campaigns_list': campaigns_list}
    return render(request, 'tfmsurveysapp/campaigns_list.html',
context)
```

View's example 2

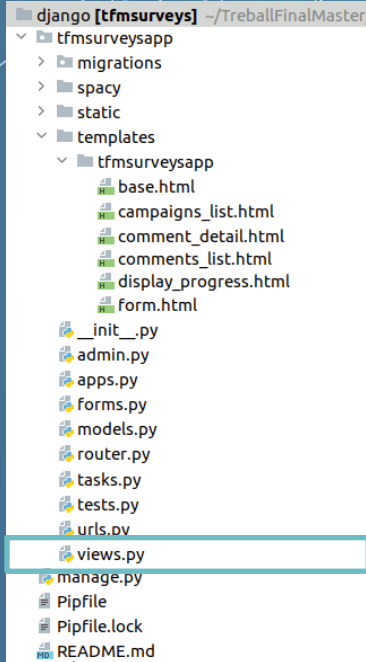
```
class CommentsList(ListView):
    model = Comment
    context_object_name = 'comments_list'
    template_name = 'tfmsurveysapp/comments_list.html'

    def get_queryset(self):
        comments_list = Comment.objects
            .filter(survey__campaign__cod_campania_lime=
            self.kwargs['cod_campania_lime'])
        self.total_count = comments_list.count()
        return comments_list

    def get_context_data(self, **kwargs):
        context = super(CommentsList, self).get_context_data(**kwargs)
        context['total_count'] = self.total_count
        return context
```

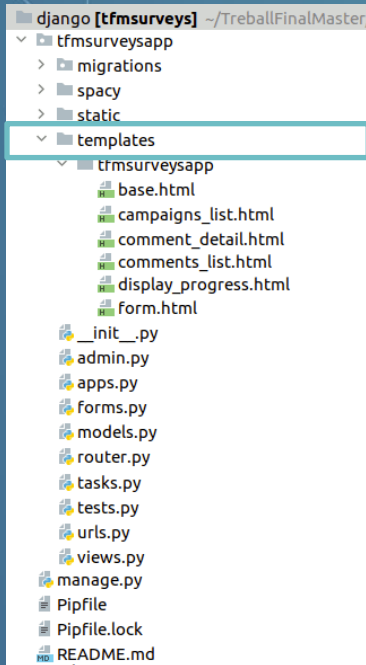
/tfmsurveysapp/urls.py

```
Def campaign_list(request):
    ...
class CommentsList(ListView):
    ...
class CommentDetail(UpdateView)
    ...
```



04 DEVELOPMENT

Iteration 6. User interface implementation Templates



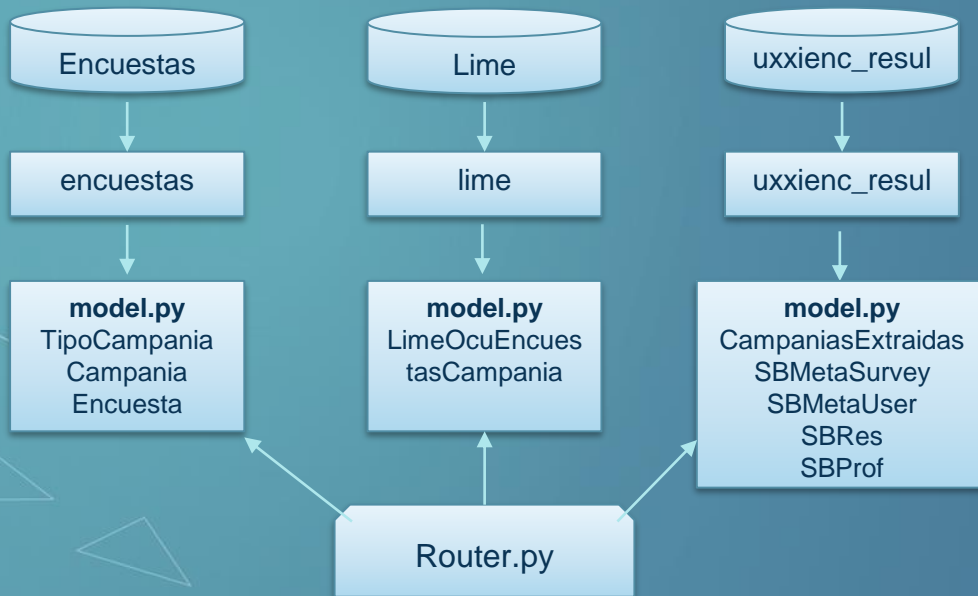
Example of template: /tfmsurveysapp/templates/tfmsurveysapp/campaigns_list.html

```
{% extends "tfmsurveysapp/base.html" %}
{% block content %}
{% load static %}
...
<table align="center" id="Lista" class="display" >
...
{% for campaign in campaigns_list %}
  <tr>
    <td align="center">{{ campaign.cod_campania_lime }}</td>
    <td>{{ campaign.name }}</td>
    <td align="center">{{ campaign.type_campaign_id }}</td>
    <td>{{ campaign.type_campaign.name }}</td>
    <td align="center">{{ campaign.fecha_extraccion_lime|date:'d-m-Y' }}</td>
    <td align="center">{{ campaign.import_date|default_if_none:""|date:'d-m-Y' }}</td>
    <td>
      <a href="{% url 'tfmsurveysapp:comments_list' campaign.cod_campania_lime %}" target="_self">
        Veure
      </a>
    </td>
  </tr>
{% endfor %}
</table>
...
{% endblock %}
```

04 DEVELOPMENT

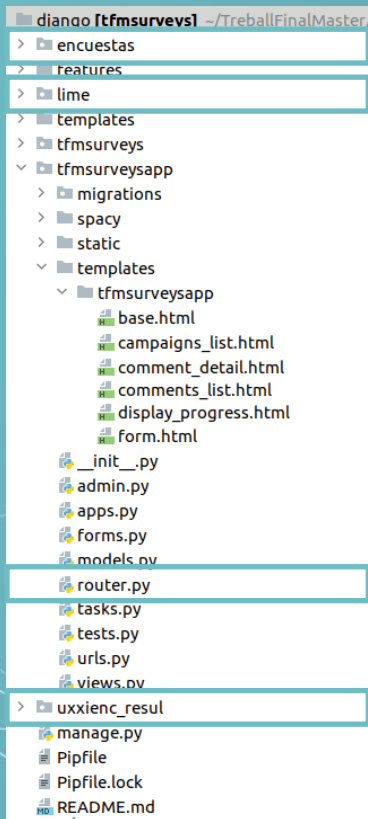
Iteration 7. Import surveys and comments Multiple legacy databases access

The original application LimeSurvey include 3 database schemas:



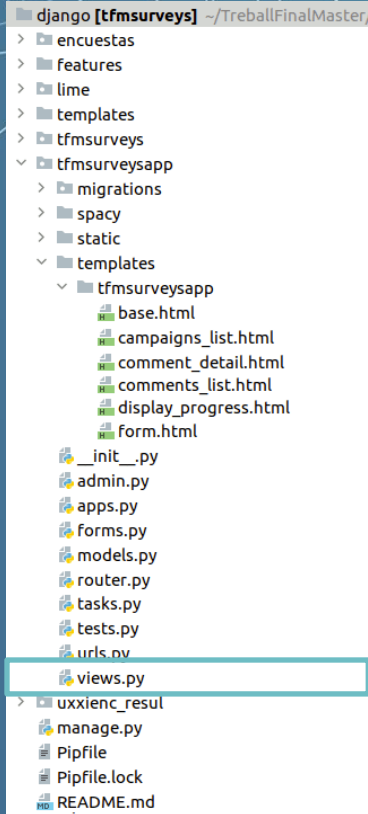
Note:

SBMetaSurvey,
SBMetaUser,
SBRes and SBProf:
Raw queries and
Multifield keys



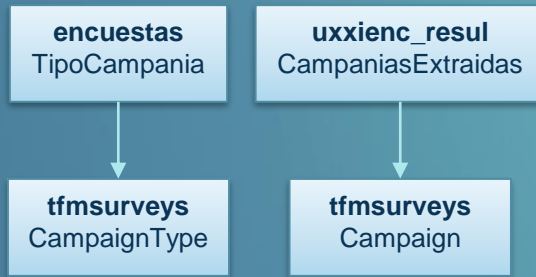
04 DEVELOPMENT

Iteration 7. Import surveys and comments



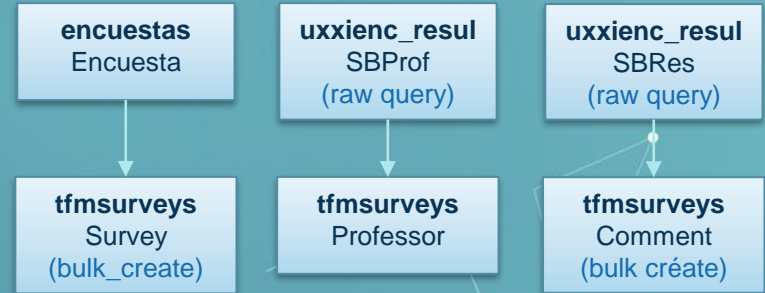
Import Campaign types and Campaigns

- Executed when opening Campaigns list
- Implemented in campaigns_list view



Import Surveys and Comments

- Executed when the user press Import button in Campaigns list
- Implemented in ImportCampaign view
- Based on **RedirectView** standard view class



04 DEVELOPMENT

Iteration 8 and 10. Integration of Django and Spacy

Executing process

Url: <http://localhost/tfmsurveys/campaigns/22/process/>

New classes

TfmLangDetector
init()
detect(comment)

TfmCategorizerModel1
init(language)
test(comment)

TfmCategorizerModel2
init(language)
test(comment)

Changes in views

ImportCampaign
(RedirectView)
Import_comments

ProcessComments
(RedirectView)
Process_models

Celerys task
process_model 1
process_model 2

Showing results

Urls: <http://localhost/tfmsurveys/campaigns/22/lang/ca>
<http://localhost/tfmsurveys/campaigns/22/issue/1>

Changes in views

CommentList
(ListView)
comments_list.filter
comments_list.count

Changes in template

comments_list
- Process comments button
- Languages summary - Issue types summary
- Language column - Issue type column

Sel·lecció de comentari:

Campanya: 18-19 Assignatura-professor màsters NP 1r S Tipus campanya: Enquesta assignatura-professor grau i màster Data importació: 10-05-2021

Idiomes: CATALA 150, CAVALA 130, Anglès 5, Total 285

Incidències: Model 1 Total 255

Mostrar 10 registres

sid	Descripció	Tipus preg.	Codi pregunta	Pregunta	tid	Idioma	Comentari original	Tipus incidència	Solució	Comentari proposat	Accions
982822 271056668	Enquesta sobre l'assignatura CAPITAL SOCIAL: GESTIO DEL TALENT I DEL CONEIXEMENT. APODERAMENT I LIDERATGE D'EQUIPS del màster MU en Gestio i Avaluació de la Intervenció per a la Transformació Social	P	P0201	COMENTARIS SOBRE (aspectes positius / aspectes de millora)	3	es	No he cursado	No ha impartit classe a aquest grup			
982822	Enquesta sobre l'assignatura CAPITAL SOCIAL: GESTIO DEL TALENT I DEL CONEIXEMENT. APODERAMENT	A	A003	COMENTARIS DE L'ASSIGNATURA:	3	es	No tiene horas				

05

CONCLUSIONS

The aim of this Project was to develop an application that helps the Quality unit of the UdL manage the free comments included in the teaching surveys.

The main features of this application are:

- Importation of campaigns, surveys and comments from Lime Survey.
- List and search of campaigns, surveys and comments.
- Manual edition of comments.
- Processing of comments to identify their language and classify them in the issue types “Professor didn’t teach this group” and “Problematic comments”.

05

CONCLUSIONS

I used **Behaviour Driven Development** methodology to define the requirements.

I defined the **features** for the high-level structure and **scenarios** for the detailed description.

I developed the user interface with **Python** and the **Django** framework.

I implemented its main components: **Models, Views, Urls** and **Templates**, but also access to legacy databases, virtual models, raw queries and others.

I analyzed and classified comments using the **Spacy** library.

I detected the language of comments with **LanguageDetector** and classified them in issue types with **TextCategorizer** and **Part-of-Speech**.



THANKS

Does anyone have any questions?

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Director: Roberto García
Master's Final Project
Master's degree in Informatics Engineering
Polytechnic School
University of Lleida

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Annex. Screens Authentication



The screenshot shows a web interface for a virtual survey. At the top, there is a dark blue header bar. On the left side of the header is the Universitat de Lleida logo, which consists of a stylized 'U' with a cross above it and two small crosses on either side. To the right of the logo, the text 'Universitat de Lleida' is displayed in white. Further to the right, the text 'Enquesta virtual' and 'Anàlisi i revisió de comentaris' is displayed in white. Below the header, the main content area is white. In the center of this area is a dark blue rectangular box. Inside this box, there are two input fields. The first is labeled 'Username:' and contains the text 'admin'. The second is labeled 'Password:' and contains a series of dots. Below these fields is a white button with the text 'login'. At the bottom of the page, there is a dark blue footer bar with the text 'Universitat de Lleida - Màster en Enginyeria Informàtica - Treball Final de Màster - David Sánchez Marín' in white.

Universitat de Lleida

Enquesta virtual
Anàlisi i revisió de comentaris

Username: admin


Password:

login

Universitat de Lleida - Màster en Enginyeria Informàtica - Treball Final de Màster - David Sánchez Marín


Annex. Screens

Campaigns list

**Universitat de Lleida**

Enquesta virtual
Anàlisi i revisió de comentaris













Usuari: admin
Usuari administrador



Selecció de campanya:

Mostrar registres

Cercar:

Codi campanya	Nom campanya	Codi Tipus campanya	Tipus campanya	Data extracció Lime	Data importació	Accions
170	18-19 Titulats formació contínua 3r P	19	Enquesta de formació contínua	12-02-2020	29-03-2021	 
169	19-20 Titulats formació contínua 1r P	26	Enquesta sobre els programes de formació contínua	03-03-2020	05-03-2021	 
168	19-20 Pràctiques externes - estudiantat (GEM - 1P)	9	Enquesta de Pràcticum - Estudiantat	18-03-2020		
163	19-20 Doctorat - Estudiantat	14	Enquesta de doctorat - Estudiantat	03-03-2020		
162	19-20 Doctorat - Director	15	Enquesta de doctorat - Directors	03-03-2020		
137	18-19 Pràctiques externes - tutor acadèmic (UXXI)	11	Enquesta de Pràcticum - Tutor acadèmic	06-11-2019		
136	18-19 Pràctiques externes - tutor acadèmic (GEM)	11	Enquesta de Pràcticum - Tutor acadèmic	09-03-2020		
135	18-19 Pràctiques externes INEFC – Tutor acadèmic	11	Enquesta de Pràcticum - Tutor acadèmic	18-12-2019		
134	18-19 Pràctiques externes INEFC – Tutor empresa	16	Enquesta de Pràcticum - Tutor empresa	18-12-2019		
133	18-19 Pràctiques externes INEFC – Alumnat	9	Enquesta de Pràcticum - Estudiantat	18-12-2019		


Mostrant registres de 1 a 10 d'un total de 93 registres

Anterior 2 3 4 5 ... 10 Següent

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Annex. Screens


Surveys and comments list



Universitat de Lleida

Enquesta virtual
Anàlisi i revisió de comentaris

Usuari: admin
 Usuari administrador




Selecció de comentari:

Campanya: **18-19 Assignatura-professor màsters NP 1r S (102)**

Tipus campanya: **Enquesta assignatura-professor grau i màster univ.**


Data importació: **10-05-2021**



Idiomes:



Castellà	159
Català	136
Anglès	4
Total	299

Incidències:

Model 1	6	
Total	299	


Mostrar **10** registres

Cercar:

sid	Descripció	Tipus preg.	Codi pregunta	Pregunta	tid	Idioma	Comentari original	Tipus incidència	Solució	Comentari proposat	Accions
982822 271056668	Enquesta sobre l'assignatura CAPITAL SOCIAL: GESTIÓ DEL TALENT I DEL CONEIXEMENT. APODERAMENT I LIDERATGE D'EQUIPS del màster MU en Gestió i Avaluació de la Intervenció per a la Transformació Social	P	P0201	COMENTARIS SOBRE <div></div> (aspectes positius / aspectes de millora)	3	es	No he cursado	No ha impartit classe a aquest grup			
982822	Enquesta sobre l'assignatura CAPITAL SOCIAL: GESTIÓ DEL TALENT I DEL CONEIXEMENT. APODERAMENT	A	A02	COMENTARIS DE L'ASSIGNATURA:	2	es	No tiene horas				


Annex. Screens


Edit comment

**Universitat de Lleida**

Enquesta virtual
Anàlisi i revisió de comentaris

Usuari:
admin
Usuari
administrador



Campanya: 102 **18-19 Assignatura-**
professor màsters NP 1r S **Tipus**
campanya: **Enquesta assignatura-**
professor grau i màster univ. **Data**
exportació: **10-04-2019** 

sid: 982822 Enquesta sobre l'assignatura CAPITAL SOCIAL: GESTIÓ DEL TALENT I DEL CONEIXEMENT, APODERAMENT I LIDERATGE D'EQUIPS del màster MU en Gestió i Avaluació de la Intervenció per a la Transformació Social

Tipus pregunta: P

Codi pregunta: P0201

Tid: 3

Pregunta: COMENTARIS SOBRE : (aspectes positius / aspectes de millora)

Comentari original: No he cursado

Idioma: Castellà

Tipus incidència: No ha impartit classe a aquest grup

Proposta solució: -----

Comentari proposat:

Desar