

Thymeleaf



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Registro de Cambios

Versión	Descripción	Fecha
1.0	Versión Inicial	6/12/2024
1.1	Actualización a variables	16/05/2024

1. Introducción

Este documento tiene como finalidad facilitar la búsqueda de variables en Thymeleaf para el proyecto de CertiDigital y EDC y además el uso de plantillas multidioma. A lo largo de este manual, proporcionaremos una guía detallada y estructurada para ayudar a los usuarios a navegar y utilizar eficientemente las variables disponibles en Thymeleaf, optimizando así el desarrollo y la implementación de funcionalidades en estos proyectos.

2. Introducción al Thymeleaf

Thymeleaf es un motor de plantillas para aplicaciones web en Java, diseñado para ser fácil de integrar y utilizar tanto en entornos de desarrollo como de producción. Se destaca por su capacidad para combinar la lógica de aplicación con el diseño de la interfaz de usuario de manera eficiente y clara. A diferencia de otros motores de plantillas, Thymeleaf permite a los desarrolladores y diseñadores trabajar con plantillas HTML que son válidas tanto en el servidor como en el navegador, lo que facilita la colaboración y el desarrollo de aplicaciones web dinámicas.

3. Configuración de las variables

Para poder interpretar correctamente este documento nos hará falta:

- Comprender [thymeleaf](#)
- Tener un JSON de la credencial
- El HTML con las variables : <https://europa.eu/europass/elm-browser/documentation/rdf/ap/edc/documentation/EDC-generic-no-cv.html>

Para obtener el JSON de una credencial, tenemos que emitirla y en la pantalla previa a la firma, podremos descargarla:

European Digital Credentials for Learning > Review

Review

Before proceeding to **Seal**, check the accuracy of your credentials by previewing them. Click the eye icon under Actions. On sealing, the credentials will be issued and cannot be modified.

[Issue more Credentials](#)

<input checked="" type="checkbox"/>	RECIPIENT	CREDENTIAL TITLE	VALID	SEALED	SENT	ACTIONS
<input checked="" type="checkbox"/>	hola caracola	Titulo de la credencial	<input checked="" type="checkbox"/>			<input type="checkbox"/> <input type="checkbox"/>

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A continuación, os dejamos uno de ejemplo para poder seguir el documento:
[CredencialDeEjemplo.json](#)

Los datos que vamos a obtener para informar están en la credencial, pero si queremos saber donde ubicados concretamente deberemos de buscar o bien dentro del JSON o apoyarnos en el HTML.

Como los datos parten de la credencial, nuestra variable comenzará en la mayoría de los casos como:

credential.*

Esa credencial es en HTML:

Verifiable Credential				
<i>A Verifiable Credential. This is the superclass of European Digital credential for Learning.</i>				
• Applies to: cred:VerifiableCredential				
Property name	URI	Expected value	Card.	
credential schema	cred:credentialSchema	IRI	1..*	The schema validated
credential status	cred:credentialStatus	xsd:anyURI	0..1	The status
credential subject (owner)	cred:credentialSubject	elm:Agent or elm:Person or elm:Organisation or	1..1	The subject claims are
evidence	cred:evidence	Evidence	0..*	The evidence
expiration date	cred:expirationDate	xsd:dateTime	0..1	The date a

Como vemos en el HTML, hay variables que contienen elementos simples o elementos que están definidos en el mismo HTML (marcados en azul). Para poder mostrar el dato, tenemos que llevar a la variable simple y no hacer referencia al objeto.

Si queremos obtener, por ejemplo, la fecha en la que se emite la credencial, podemos buscarlo (en inglés):

Verifiable Credential

A Verifiable Credential. This is the superclass of European Digital credential for Learning.

- Applies to: [cred:VerifiableCredential](#)

Property name	URI	Expected value	Card.	Description
credential schema	cred:credentialSchema	IRI	1..*	The schema the verifiable credential should be validated against.
credential status	cred:credentialStatus	xsd:anyURI	0..1	The status of the verifiable credential.
credential subject (owner)	cred:credentialSubject	elm:Agent or elm:Person or elm:Organisation or	1..1	The subject (agent, person etc) about which claims are made and who owns the credential.
evidence	cred:evidence	Evidence	0..*	The evidence of the verifiable credential.
expiration date	cred:expirationDate	xsd:dateTime	0..1	The date and time when the credential expires.
holder	cred:holder	elm:Agent or elm:Person or elm:Organisation or	0..1	The holder of verifiable credential.
issuance date	cred:issuanceDate	xsd:dateTime	0..1	Defines the date and time, when the credential becomes valid.
issued	cred:issued	xsd:dateTime	1..1	The date when the credential was issued .
issuer	cred:issuer	Issuer Node	1..1	The organisation that issued the credential and sealed it with its digital e-seal.

Como vemos en la descripción, la fecha en la que la credencial ha sido emitida es:

credential.issued

Ahora vamos a comprobarlo en el JSON:

```

1  {
2    "credential" : {
3      "id" : "urn:credential:lff81c0e-0864-4155-9c0c-eb7ed367803c",
4      "type" : [ "VerifiableCredential", "EuropeanDigitalCredential" ],
5      "credentialSchema" : [ {
6        "id" : "http://data.europa.eu/snb/model/ap/edc-generic-full",
7        "type" : "ShaclValidator2017"
8      } ],
9      "credentialSubject" : {
446      "issuanceDate" : "2023-11-16T16:04:03+01:00",
447      "issued" : "2023-11-16T16:04:03+01:00",
448      "validFrom" : "2024-06-17T22:00:00Z",
449      "credentialProfiles" : [ {
450        "id" : "http://data.europa.eu/snb/credential/e34929035b",

```

Efectivamente, esa variable existe y está informada (línea 447).

Ahora vamos a ponerlo un poco mas difícil, vamos a recuperar el nombre de la persona y la nota que ha obtenido.

Buscamos el nombre (en inglés)

Property name	URI	Expected value	Card.	Description
birth name	cpv:birthName	rdf:langString	0..*	The name of the person at birth. Birth names tend to be persistent and for this reason they are recorded by some public sector information systems. There is no granularity for birth name - the full name should be recorded in a single field.
citizenship	elm:citizenshipCountry	Concept	0..*	The country (or countries) that conferred citizenship rights on the person. It should be provided using the Country Named Authority List.
contact information	elm:contactPoint	Contact Point	0..*	The contact information of the person.
date of birth	elm:dateOfBirth	xsd:dateTime	0..1	The date of birth of the person.
family name	foaf:familyName	rdf:langString	0..1	The family name of the person.
full name	foaf:fullName	rdf:langString	0..1	The complete name of the person as one string.
gender	elm:gender	Concept	0..1	The gender of the person. It should be provided using the Human Sex Named Authority List.

Como vemos, pertenece al elemento “Person”. Si vemos la imagen de Verificable Credential (más arriba), veremos que pertenece a “credentialSubject”. Por tanto, para poder obtener el nombre de la persona deberemos escribir:

credential.credentialSubject.fullName

Si lo buscamos en el JSON:


```

"credential" : { 1
  "id" : "urn:credential:lff81c0e-0864-4155-9c0c-eb7ed367803c",
  "type" : [ "VerifiableCredential", "EuropeanDigitalCredential" ],
  "credentialSchema" : [ {
    "id" : "http://data.europa.eu/snb/model/ap/edc-generic-full",
    "type" : "ShaclValidator2017"
  } ],
  "credentialSubject" : { 2
    "id" : "urn:epass:person:1",
    "type" : "Person",
    "givenName" : {
      "es" : [ "hola" ]
    },
    "familyName" : {
      "es" : [ "caracola" ]
    },
    "fullName" : { 3
      "es" : [ "hola caracola" ]
    }
  }
}

```

Ahora, vamos a por la nota:

Note

Free text metadata fields, such as the description, a historical or additional note of a qualification can contain a plain text or a XHTML fragment as literal value. By using a Note both the datatype of the literal and the language can be specified.

- Applies to: **elm:Note**

Property name	URI	Expected value	Card.	Description
note format	elm:noteFormat	Concept	0..1	The format of the note. It should be provided using the IANA types for text, text/plain, text/html etc.
note literal	elm:noteLiteral	rdf:langString	1..*	The textual content of the note.
subject	dc:subject	Concept	0..1	The subject of the note. It should be provided using a controlled vocabulary.

En nuestro caso, es noteLiteral, que pertenece a Note. Este a su vez formará parte de una evaluación "LearningAssessment" a si que vamos a buscarlo en el HTML

Learning Assessment

The result of a process establishing the extent to which a learner has attained particular knowledge, skills and competences against criteria such as learning outcomes or standards of competence. Learning Assessment is a subclass of Claim.

- Applies to: [elm:LearningAssessment](#)

Property name	URI	Expected value	Card.	Description
assessed by	elm:assessedBy	elm:Agent or elm:Person or elm:Organisation or	0..*	The competent body that awarded the grade.
awarded by	elm:awardedBy	Awarding Process	1..1	The awarding details of the learning assessment.
date issued	dc:issued	xsd:dateTime	0..1	The date when the learning assessment was formally approved/issued.
description	dc:description	rdf:langString	0..*	A free text description of the learning assessment.
grade	elm:grade	Note	1..1	A resulting grade of the assessment.
grade status	elm:gradeStatus	Concept	0..1	The status of the grade, which can be i) pass, ii) fail or iii) other. It should be provided using a controlled

Learning Assessment pertence a un elemento “claim”:

Claim

A **claim** made by an issuer. This class carries properties common to all **claims**, including [Learning Achievement](#), [Learning Activity](#), [Learning Assessment](#) and [Learning Entitlement](#). It serves as an extension point that enables the definition of additional subclasses.

- Applies to: [elm:Claim](#)

Property name	URI	Expected value	Card.	Description
awarded by	elm:awardedBy	Awarding Process	1..1	The awarding details of the claim .
description	dc:description	rdf:langString	0..*	A free text description of the claim .
identifier	adms:identifier	elm:Identifier or elm:LegalIdentifier	0..*	An identifier of the claim .
more information	elm:additionalNote	Note	0..*	An additional free text note about the claim .
other documents	elm:supplementaryDocument	Web Resource	0..*	A public web document containing additional documentation about the claim .
title	dc:title	rdf:langString	1..*	The title of the claim . One value per language is permitted.
type	dc:type	Concept	0..*	The type of the claim . It should be provided using a controlled vocabulary. The users can also use their own controlled list(s) to specify subtypes of the Learning Achievement , Learning Activity , Learning Assessment and Learning Entitlement . Multiple types are allowed, but they should all fall under the same upper type (Learning Achievement , Learning Activity , Learning Assessment and Learning Entitlement), since the subclasses of Claim superclass are disjoint.

Y como este es un elemento ELM que podemos reclamar, pertenece a “verificable credential” en concreto a “credentialSubject” (que contiene los elementos ELM). Por tanto, accederemos como:

credential.credentialSubject.hasClaim[1].grade.noteLiteral.es

Sabemos que es la posición 1 y no la 0 porque en el JSON:

```

    "hasClaim" : [ {
      "id" : "urn:epass:learningAchievement:1",
      "type" : "LearningAchievement",          Posicion 0
      "awardedBy" : {
        "id" : "urn:epass:awardingProcess:2",
        "type" : "AwardsProcess",
      }
    }
  ]
}

```

```

18     "fullName" : {
19       "es" : [ "hola caracola" ]
20     },
21     "hasClaim" : [
22       {
208     {
209       "id" : "urn:epass:learningAssessment:1",
210       "type" : "LearningAssessment",          Posicion 1 - El tipo que
211       "awardedBy" : {                          buscamos
212         "id" : "urn:epass:awardingProcess:1",
213         "type" : "AwardsProcess",
214         "awardingBody" : [ {
215           "id" : "urn:epass:org:1",
216           "type" : "Organisation",
217           "altLabel" : {
218             "es" : [ "Organismo adjudicador" ]
219           }
220         }
221       ]
222     }
223   ]
224 }

```

Como tiene varios idiomas, seleccionamos el español

```

20      },
21      "hasClaim" : [
22      {
208      {
209      "id" : "urn:epass:learningAssessment:1",
210      "type" : "LearningAssessment",
211      "awardedBy" : {
264      "description" : {
265      "es" : [ "A2 - Speaking" ]
266      },
267      "title" : {
268      "en" : [ "Maths" ],
269      "es" : [ "Evaluacion Matematicas" ]
270      },
271      "grade" : {
272      "id" : "urn:epass:note:1",
273      "type" : "Note",
274      "noteLiteral" : {
275      "en" : [ "10" ],
276      "es" : [ "9" ]
277      }
278      },
279      "specifiedBy" : {

```

4. Crear plantillas multidioma

Para poder crear una plantilla HTML multidioma podremos hacerlo de dos maneras:

OPCIÓN A: Elegimos las variables que queremos visualizar. Para los textos literales que queramos mostrar en ambos idiomas, utilizamos etiquetas comodín (wildcard labels) y les asignamos el texto en el idioma correspondiente. De esta forma, el código HTML es el mismo para los 2 idiomas.

En este ejemplo, el código utilizado es el siguiente:

```

<div style="font-style: normal; padding-bottom: 2rem; padding-top: 2rem;">
  <div style="flex: 0 0 100%; max-width: 100%; display: block; text-align: center;">
    <br/> <br/>
    
  </div> <br/> <br/> <br/> <br/>
</div>
<div style="flex: 0 0 100%; max-width: 100%;">
  <p style="font-family: Calibri; font-size: 30px; margin-top: 2rem; margin-bottom: 1rem; margin-right: 2em; margin-left: 2em; color: #171796 !important; text-align: center; font-style: italic !important;"
  th:with="
    caseFullName = ${credential.credentialSubject.fullName != null and
  !#strings.isEmpty(credential.credentialSubject.fullName)},
    caseGivenName = ${credential.credentialSubject.givenName != null and
  !#strings.isEmpty(credential.credentialSubject.givenName)},
    caseBirthName = ${credential.credentialSubject.birthName != null and
  !#strings.isEmpty(credential.credentialSubject.birthName)},


```


```


        caseFamilyName = ${credential.credentialSubject.familyName != null and
!#strings.isEmpty(credential.credentialSubject.familyName)},
        caseNationalID = ${credential.credentialSubject.nationalID != null and
!#strings.isEmpty(credential.credentialSubject.nationalID)}"
        th:text="{
        caseFullName ? credential.credentialSubject.fullName :
        caseGivenName ? #strings.concatReplaceNulls(", credential.credentialSubject.givenName, ', ',
credential.credentialSubject.patronymicName, ', ', credential.credentialSubject.familyName) :
        caseBirthName ? credential.credentialSubject.birthName :
        caseFamilyName ? credential.credentialSubject.familyName :
        caseNationalID ? credential.credentialSubject.nationalID : 'Anonymous'
}">
    </p>
<p style="text-align: center; font-family: Calibri; font-size: 22px;"
th:text="#{NIF} + ' ' + ${credential.credentialSubject.nationalID}"></p>
<br/>
<p style="text-align: center; font-family: Calibri; font-size: 22px;"
th:text="#{SUPERADO}">
</p>
<p style=" margin: 2rem 1em; margin-right: 2em; margin-left:2em; text-align: center ;
font-family: Calibri; color: #171796 ; font-size: 26px;"
th:text="${credential.displayParameter.title}"
></p>
<p style="text-align: center; font-family: Calibri; font-size: 22px;"
th:text="#{ACADEMICO}"> </p>
<br/>
<p style="text-align: center; font-family: Calibri; font-size: 22px;"th:text="#{CALIFICACION}"> </p>
<p style=" margin: 2rem 1em; text-align: center ;
color: #171796 ; font-family: Calibri; font-size: 30px;"
th:text="${credential.credentialSubject.hasClaim[0].provenBy[0].grade.noteLiteral}">
</p><br/> <br/> <br/><br/> <br/>
<p style="text-align: center; font-family: Calibri; font-size: 20px;" th:text=" #{LUGAR} + ' ' +
${#dates.format(#dates.createNow(), 'dd-MM-yyyy HH:mm ')}"></p>
</div>

```

Las etiquetas comodín definidas en cada pestaña de idioma son:


Antecedentes 











Cargar imagen


Tamaño máximo del archivo: 1 MB
 Formatos de archivo aceptados: .JPEG, .JPG, .PNG


Etiquetas comodín 

<input type="text" value="CALIFICACION"/>	<input type="text" value="con la calificación global de"/>	
<input type="text" value="ACADEMICO"/>	<input type="text" value="durante el curso académico 2022/23"/>	
<input type="text" value="NIF"/>	<input type="text" value="con DNI/pasaporte:"/>	
<input type="text" value="LUGAR"/>	<input type="text" value="En Leganés, a fecha:"/>	
<input type="text" value="SUPERADO"/>	<input type="text" value="ha superado la asignatura"/>	

[+ Add](#)


Antecedentes 










Cargar imagen

Tamaño máximo del archivo: 1 MB
 Formatos de archivo aceptados: .JPEG, .JPG, .PNG

Etiquetas comodín 

<input type="text" value="CALIFICACION"/>	<input type="text" value="with the overall rating of:"/>	
<input type="text" value="ACADEMICO"/>	<input type="text" value="during the academic year 2022/23"/>	
<input type="text" value="NIF"/>	<input type="text" value="with ID/Passport"/>	
<input type="text" value="LUGAR"/>	<input type="text" value="In Leganés, on:"/>	
<input type="text" value="SUPERADO"/>	<input type="text" value="has passed the course:"/>	

[+ Add](#)

La credencial resultante se puede visualizar en cada idioma, seleccionando el idioma en el desplegable que hay a la derecha:

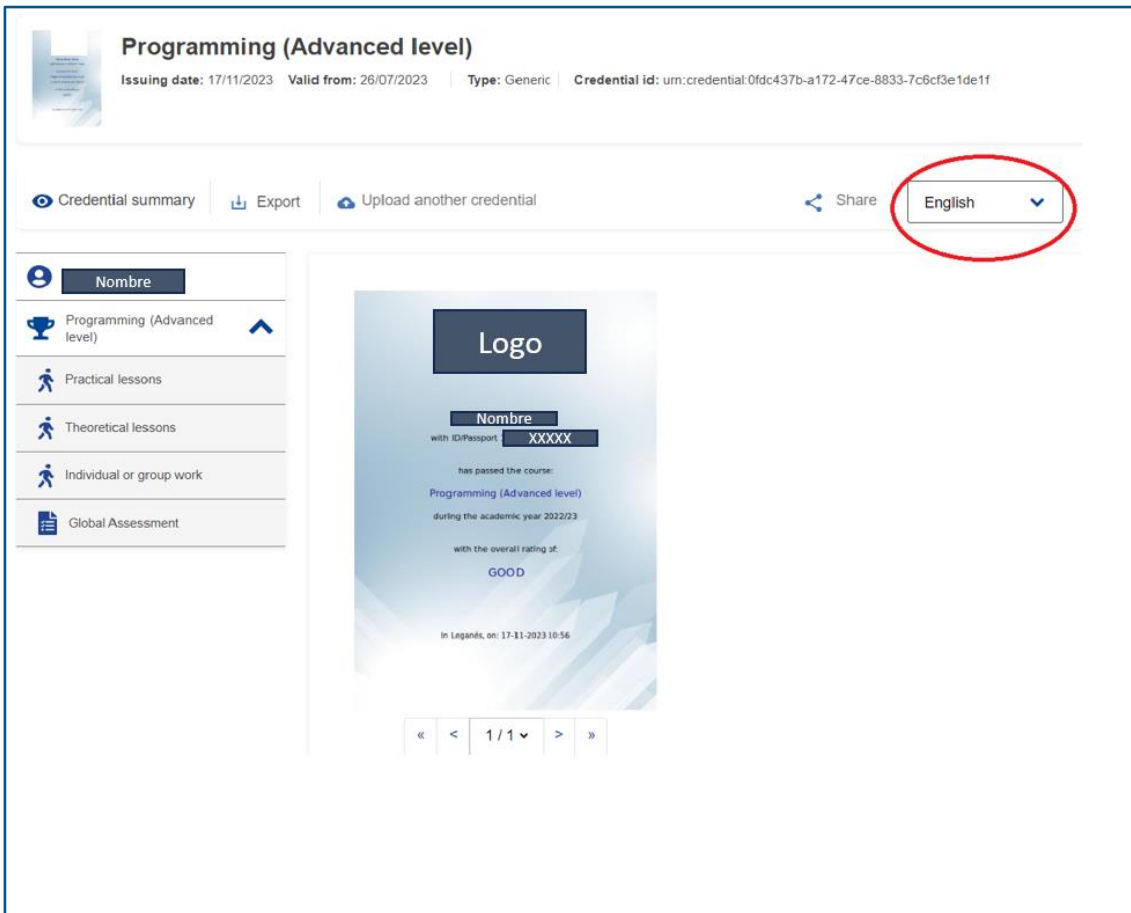
The screenshot displays a digital credential interface. At the top, the title is "Programación (Nivel de profundización)". Below the title, there is a row of metadata: "Issuing date: 17/11/2023", "Valid from: 26/07/2023", "Type: Genérica", and "Credential id: urn:credential:0fdc437b-a172-47ce-8833-7c6cf3e1de1f".

Below the metadata, there is a navigation bar with several options: "Credential summary", "Export", "Upload another credential", and "Share". A language dropdown menu is located on the right side of this bar, currently set to "Español" and highlighted with a red circle.

On the left side, there is a sidebar menu with the following items: "Nombre", "Programación (Nivel de profundización)", "Clases prácticas", "Clases teóricas", "Trabajo individual o en grupo", and "Evaluación Global".

The main content area shows a preview of the credential. It features a "Logo" at the top, followed by the name "Nombre" and a masked DNI/passport number "XXXXX". The text indicates that the holder has passed the subject "Programación (Nivel de profundización)" during the 2022/23 academic course with a global grade of "APTO". The date and time of issuance are "En Leganés, a fecha: 17-11-2023 10:56".

At the bottom of the preview, there is a navigation control showing "1 / 1" with arrows for navigation.



OPCIÓN B: Elegimos las variables que queremos visualizar. Para los textos literales que queramos mostrar en ambos idiomas, utilizar una única etiqueta comodín (wildcard labels), "lang" que tomará el valor del idioma (es, en ...). En el template se comprueba con condiciones el valor que tiene la etiqueta para mostrar el literal correspondiente (con más de 2 idiomas se podría utilizar un th:switch).

Ejemplo de código utilizado en UGR:

```
<div style="padding: 2rem auto 2rem; margin-left:170px;"
th:with="idioma=#{lang}">
```

```
  <!-- logo de la entidad que otorga la evaluación global de la
  credencial (subentidad de la entidad que otorga la credencial)
  El logo de la entidad principal que otorga la credencial sería
  -->
```

```
  <div style="flex: 0 0 100%; max-width: 100%; display: block; text-align: center; margin-bottom: 6rem;">
```

```
    
```



```

</div>
<div style="flex: 0 0 100%; max-width: 100%; text-align: center;
font-family: Gill Sans,sans-serif; font-size: 18px;">

  <p style="margin-bottom: 2rem;"
    th:text="#{emisor}">
  </p>

  <p>
    <h1 style="color:#934393" th:utext="{idioma
== 'es'?'CERTIFICA': 'CERTIFIES'}"></h1>
    <span
      th:with="
        caseFullName = ${credential.credentialSubject.fullName
!= null and !#strings.isEmpty(credential.credentialSubject.fullName)},
        caseGivenName =
${credential.credentialSubject.givenName != null and
!#strings.isEmpty(credential.credentialSubject.givenName)},
        caseBirthName =
${credential.credentialSubject.birthName != null and
!#strings.isEmpty(credential.credentialSubject.birthName)},
        caseFamilyName =
${credential.credentialSubject.familyName != null and
!#strings.isEmpty(credential.credentialSubject.familyName)},
        caseNationalID =
${credential.credentialSubject.nationalID != null and
!#strings.isEmpty(credential.credentialSubject.nationalID)}"
      th:text="{idioma == 'es'?'Que': 'That'}+", '+${
        caseFullName ? credential.credentialSubject.fullName :
        caseGivenName ? #strings.concatReplaceNulls(' ',
credential.credentialSubject.givenName, ' ',
credential.credentialSubject.patronymicName, ' ',
credential.credentialSubject.familyName) :
        caseBirthName ? credential.credentialSubject.birthName
:
        caseFamilyName ?
credential.credentialSubject.familyName :
        caseNationalID ?
credential.credentialSubject.nationalID : 'Anonymous'
}+', '">
    </span>
    <span
      th:if="{credential.credentialSubject.nationalID}"
      th:text="{#strings.concatReplaceNulls(' ',idioma
== 'es'?'con DNI/Pasaporte: ':'with ID card:
',credential.credentialSubject.nationalID,idioma == 'es'?' ha
participado en la ':' has participated in the ')}">
    </span>

    <h1 style="color:#934393; margin: 3rem auto;"
      th:text="{credential.displayParameter.title}">
    </h1>

```

```

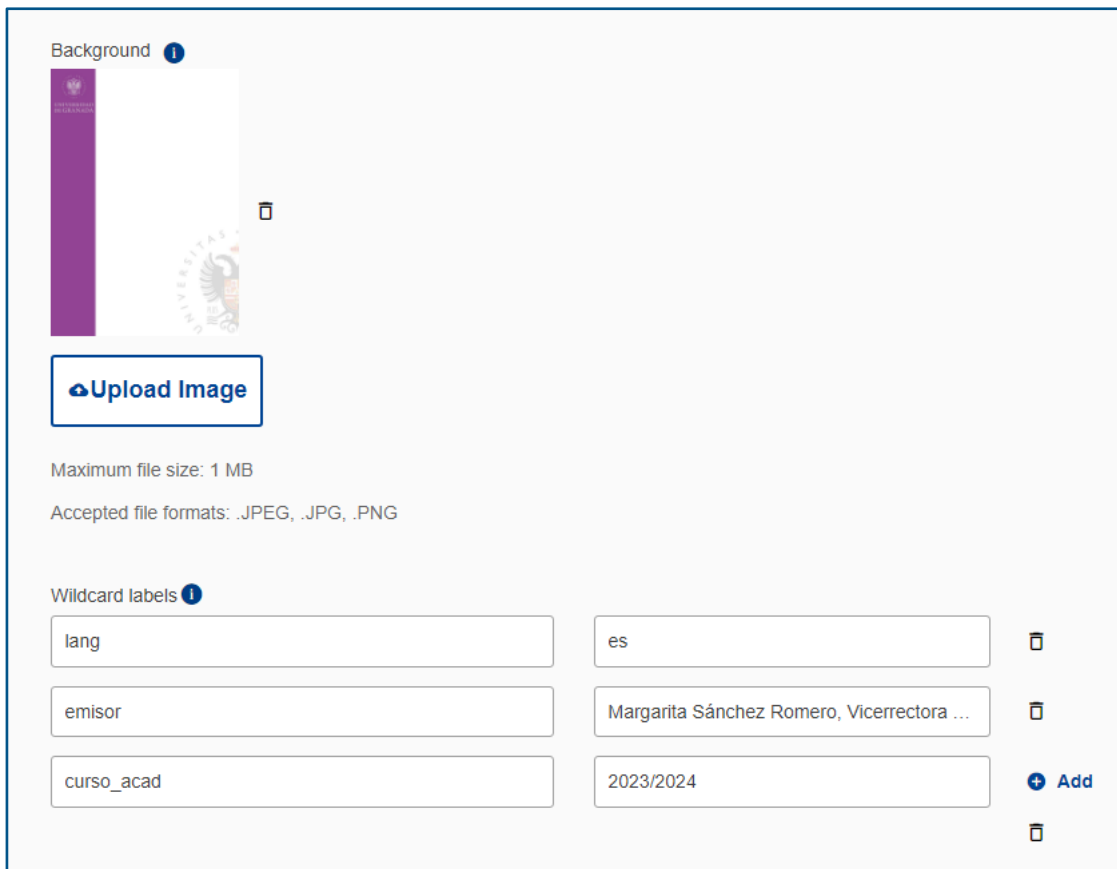
<span
  th:text="{idioma == 'es'? 'durante el curso académico
': 'during the academic year '} + #{curso_acad} + {idioma == 'es'? ' con
la calificación global de ':' with an overall grade of '}">
</span>


<h1 style="color:#934393; margin: 3rem auto;"



th:text="{credential.credentialSubject.hasClaim[0].provenBy[0].grade.
noteLiteral}">
</h1>
</p>
<p style="margin-top: 8rem; font-weight: bold;">
  <span th:text="{idioma == 'es'? 'Y, para que conste y surta
los efectos oportunos firma la presente certificación en Granada a
': 'And, for the record and for the appropriate effects signs this
certification in Granada on '} + #{dates.format(#dates.createNow(),
'dd-MMM-yyyy')}"></span>
</p>
</div>
</div>


```

Las etiquetas comodín definidas en cada pestaña de idioma son:







Background 




 Upload Image

Maximum file size: 1 MB
Accepted file formats: .JPEG, .JPG, .PNG

Wildcard labels 

<input type="text" value="lang"/>	<input type="text" value="en"/>	
<input type="text" value="emisor"/>	<input type="text" value="Margarita Sánchez Romero, Vice-Rector f..."/>	
<input type="text" value="curso_acad"/>	<input type="text" value="2023/2024"/>	

 Add


UNIVERSIDAD DE GRANADA



Margarita Sánchez Romero, Vicerrectora de Extensión Universitaria, Patrimonio y Relaciones Institucionales

CERTIFICA

Que, Nombre Apellidos, con DNI/Pasaporte: 123456789 - España ha participado en la

Orquesta Universidad de Granada

durante el curso académico 2023/2024 con la calificación global de

APTO

Y, para que conste y surta los efectos oportunos firma la presente certificación en Granada a 05-Dec-2023


UNIVERSIDAD DE GRANADA



Margarita Sánchez Romero, Vice-Rector for Outreach, Heritage and Institutional Relations

CERTIFIES

That, Nombre Apellidos, with ID card: 123456789 - Spain has participated in the

UGR Orchestra

during the academic year 2023/2024 with an overall grade of

PASS

And, for the record and for the appropriate effects signs this certification in Granada on 05-Dec-2023