



UNIVERSIDAD  
POLITECNICA  
DE VALENCIA

**Laboratory**

*Study Case*

**UPVTube**

**Software Engineering**

Computer Science School

DSIC – UPV

**Year 2023-2024**

UPV has decided to deploy a video management system so that content creators may offer their videos and keep a certain interaction with video consumers. To this extent UPV has hired ISWSoft to analyze and develop a software application.

Content creators will be UPV members who want to share videos that they record. Content creators may be not only UPV lecturers but also students. Any person registered in the system may be a consumer. To register a person must provide an email address, a full name, a Nick and a password. If the email is one supported by UPV then the person will be registered according to his/her domain. For instance, if the server is @inf.upv.es then the registered person is a student and if the server is @dsic.upv.es or @disca.upv.es then the person is a lecturer. To login, either the email address or the Nick may be used.

To upload new content, the creator must provide a title, a description, a URI where the video is located, the list of related UPV taught courses (if any and up to a maximum of 3 related courses), and whether it is a public or restricted video. The system will record the upload date. If the content creator is a lecturer, then it is automatically authorized. However, if the creator is a student, then it will be revised by an evaluator who will determine whether it is authorized or discarded. In case it is discarded a rejection reason will be given. In any case, the content creator will receive an email to be informed about the situation.

Any lecturer in the system may be a reviewer. Reviewers will be able to see the list of pending contents to be approved to authorize or reject them. Once an evaluation has been performed, the system will record the date and the reviewer who made the assessment.

Any person registered in the system will be able to search videos according to several criteria: by upload date (providing start and end dates), by creator (using the Nick), by words in the title and by related course. Consumers who are not UPV members will not be able to see restricted videos.

The content visualization screen will display the comments (Nick and comment text) made consumers sorted by date and time. Only UPV members will be able to make comments about videos. Comments may not be modified nor deleted.

UPV consumers will be able to subscribe to content creators. In this way, when a consumer authenticates himself/herself, the system will automatically display all new authorized contents that have been uploaded by creators to whom they are subscribed since the latest consumer login. UPV consumers will be able to remove a subscription at any moment.

The visualization of contents by consumers will be recorded by the system. UPV consumers will be able to see the sorted list (by date) of content visualizations.

Courses will be registered in the system with a full name, an acronym and a code (a number).

The system will manage all the functionality described above. In addition, the administrator of the system will perform CRUD operations (Create, Read, Update, Delete) for the entities on the system. For this lab product no management/visualization of actual videos will be implemented. Storing a video URL in the system will suffice. The implemented product will not send actual emails. It will be enough to show a message on screen with a simulated "email sent to <nick>" notification.



1. Create a Sprint called “Persistence and Constructors” lasting from today until the last week of October (set dates)
2. Create the following Product Backlog features structure

Backlog		Analytics		+ New Work Item		View as Board		Column Options					
		Order	Work Item Type	Title				State	Effort	Busi			
+	1	Feature	>	Session Management				New					
	2	Feature	>	Users Management				New					
	3	Feature	>	Content Elements Management				New					
	4	Feature	>	Content Display Management				New					
	5	Feature	>	Content Search Management				New					
	6	Feature	>	Content Reviews Management				New					
	7	Feature	>	Comments Management				New					
	8	Feature	>	Subscriptions Management				New					
	9	Feature	>	Persistence Layer				New					
	10	Feature	>	Business Logic Layer				New					

3. Create the following User Stories

		Order	Work Item Type	Title				State	Effort	B	
+	1	Feature	▼	Session Management				New			
		User Story		Log In				New			
		User Story		Log Out				New			
	2	Feature	▼	Users Management				New			
		User Story	>	Register New User				New			
	3	Feature	▼	Content Elements Management				New			
		User Story	>	Upload New Content				New			
	4	Feature	▼	Content Display Management				New			
		User Story	>	Display Content Details				New			
		User Story		View List of Content Visualizations				New			

	<div><div></div><div></div></div>	Order	Work Item Type	Title	State	Effort	
		5	Feature	Content Search Management	New		
			User Story	Search Content By Upload Date	New		
			User Story	Search Content By Author	New		
			User Story	Search Content By Words in Title	New		
			User Story	Search Content By Related Course	New		
		6	Feature	Content Reviews Management	New		
			User Story	List Pending to Review Contents	New		
			User Story	Add Review to Pending Content	New		
		7	Feature	Comments Management	New		
			User Story	Add New Comment	New		
	+	8	Feature	Subscriptions Management	New		
		8	Feature	Subscriptions Management	New		
			User Story	Add New Subscription	New		
			User Story	Remove Subscription	New		
		9	Feature	Persistence Layer	New		
			User Story	Entity Framework Integration	New		
	+	10	Feature	Business Logic Layer	New		
			User Story	Testing Business Logic Layer	New		