



THEATER-WEBAPP PROJECT

Theater Management System

Web Application Course – AY 2019/2020

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RUZZANTE TMS: Main Features



EASE OF ACCESS AND EDIT TO ALL
THE RELEVANT INFORMATION.
NO BACKEND FRAMEWORKS



USER-BASED AUTHORIZATION FOR
A PERSONALIZED EXPERIENCE.



ON THE FLY COMPANY STATS
COMPUTED IN REAL-TIME.

Mixed page-building techniques

The “Activity” and “Transaction” section of the website uses two data retrieval strategies:

- Dedicated servlets for the page structure and for stats computation
- AJAX calls to a custom-built REST API for dynamic, frequently-updated content.

The screenshot displays a web application interface with a dark theme. At the top, there are two summary boxes: 'Total activities' with a value of 6 and 'Audience Index' with a value of 0,26, followed by a 'Total' button. Below these is a section for 'Upcoming Activities' with a table listing events. To the left of the main content is a vertical sidebar with a calendar view showing dates from June to May. The main content area is divided into two parts: a 'Transaction List' and a 'Transaction detail' panel.

Upcoming Activities

Date	Title	Location
giugno 05	Play 10:00 RuzzanteLive: Comedy Of Errors - First Date	Ruzzante Theater
dicembre 28	Variety Show 21:36 Baruffe Cioxotte	Parls

Transaction List

Latest transactions [+ New Transaction](#)

Name	Amount	Date	Managed By	Actions
Buy Hair Wax	1000	2020-03-05	linda	Edit
Buy Classic Dress	400	2020-04-15	linda	Edit
Buy Scene Lights	4000	2020-04-25	allen	Edit
Buy Microphones	1000	2020-03-09	kirsten	Edit
TestTransaction	500	2020-05-23	allen	Edit
2753	2882	2020-05-27	lucas	Edit
Buy Iphone 8	50000	2020-04-26	lucas	Edit
Test	2563	2020-05-28	lucas	Edit

Transaction detail

Transaction ID	302
Name	Buy Classic Dress
Amount	400
Date	2020-04-15
Description	Buy Classic Dress for costume department
Related activity	Stor Todaro Brontolon,
Related Item	undefined
Invoice	Click here to open
Managed By	linda

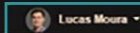
Server-side consistency management

In “Transaction” the season is computed at the insertion time in the Java JDBC class. At the same time the overall season income and expenses are updated.

User information is obtained from the authenticated session.

	transid [PK] integer	name character varying	description character varying	amount numeric (10,2)	invoice character varying	transactiondate date	username character varying	seasonid integer
1	25	TestTransaction	test transaction for 1 activity...	500.00	https://ruzzante.eu	2020-05-23	allen	20192020
2	300	Buy Iphone 8	Buy Iphone 8 for members	50000.00	https://bit.ly/2yIgCHD	2020-04-26	lucas	20192020
3	301	Buy Hair Wax	Buy Hair Wax for hair depart...	1000.00	https://bit.ly/2yIgCHD	2020-03-05	linda	20192020
4	302	Buy Classic Dress	Buy Classic Dress for costu...	400.00	https://bit.ly/2yIgCHD	2020-04-15	linda	20192020
5	303	Buy Scene Lights	Buy Scene Lights for scenog...	4000.00	https://bit.ly/2yIgCHD	2020-04-25	allen	20202021
6	304	Buy Microphones	Buy Microphones for scenog...	1000.00	https://bit.ly/2yIgCHD	2020-03-09	kirsten	20192020

seasonid [PK] integer	period daterange	revenues numeric (10,2)	expenses numeric (10,2)	initialfund numeric (10,2)
1	20182019 [2018-10-01,2019-...	200.00	100.00	100.00
2	20192020 [2019-10-01,2020-...	200.00	240.00	100.00
3	20202021 [2020-10-01,2021-...	300.00	250.00	100.00



Add a new transaction

Transaction info

Fill the following fields, the ones marked with * are mandatory.

Type * ☐ Income ☒ Expense

Name* Mains Wires

Description 50 meters of wiring

Amount * 35

Date * 03/06/2020

Invoice Link

Related Activity ID start typing to search...

Submit

seasonid [PK] integer	period daterange	revenues numeric (10,2)	expenses numeric (10,2)	initialfund numeric (10,2)
1	20182019 [2018-10-01,2019-...	200.00	100.00	100.00
2	20192020 [2019-10-01,2020-...	200.00	275.00	100.00
3	20202021 [2020-10-01,2021-...	300.00	250.00	100.00

transid [PK] integer	name character varying	description character varying	amount numeric (10,2)	invoice character varying	transactiondate date	username character varying	seasonid integer	
1	1	Mains Wires	50 meters of wiring	-35.00	2020-06-03	lucas	20192020	
2	25	TestTransaction	test transaction for 1 activity...	500.00	https://ruzzante.eu	2020-05-23	allen	20192020
3	300	Buy Iphone 8	Buy Iphone 8 for members	50000.00	https://bit.ly/2yIgCHD	2020-04-26	lucas	20192020
4	301	Buy Hair Wax	Buy Hair Wax for hair depart...	1000.00	https://bit.ly/2yIgCHD	2020-03-05	linda	20192020
5	302	Buy Classic Dress	Buy Classic Dress for costu...	400.00	https://bit.ly/2yIgCHD	2020-04-15	linda	20192020
6	303	Buy Scene Lights	Buy Scene Lights for scenog...	4000.00	https://bit.ly/2yIgCHD	2020-04-25	allen	20202021
7	304	Buy Microphones	Buy Microphones for scenog...	1000.00	https://bit.ly/2yIgCHD	2020-03-09	kirsten	20192020

Layout

We started using .jsp pages right from the beginning through a very basic layout structure as it eased developing by importing common parts of the layout. The fact that we didn't had to touch this part in the 2nd homework proves that it was a sensible choice even if quite trivial and simple.

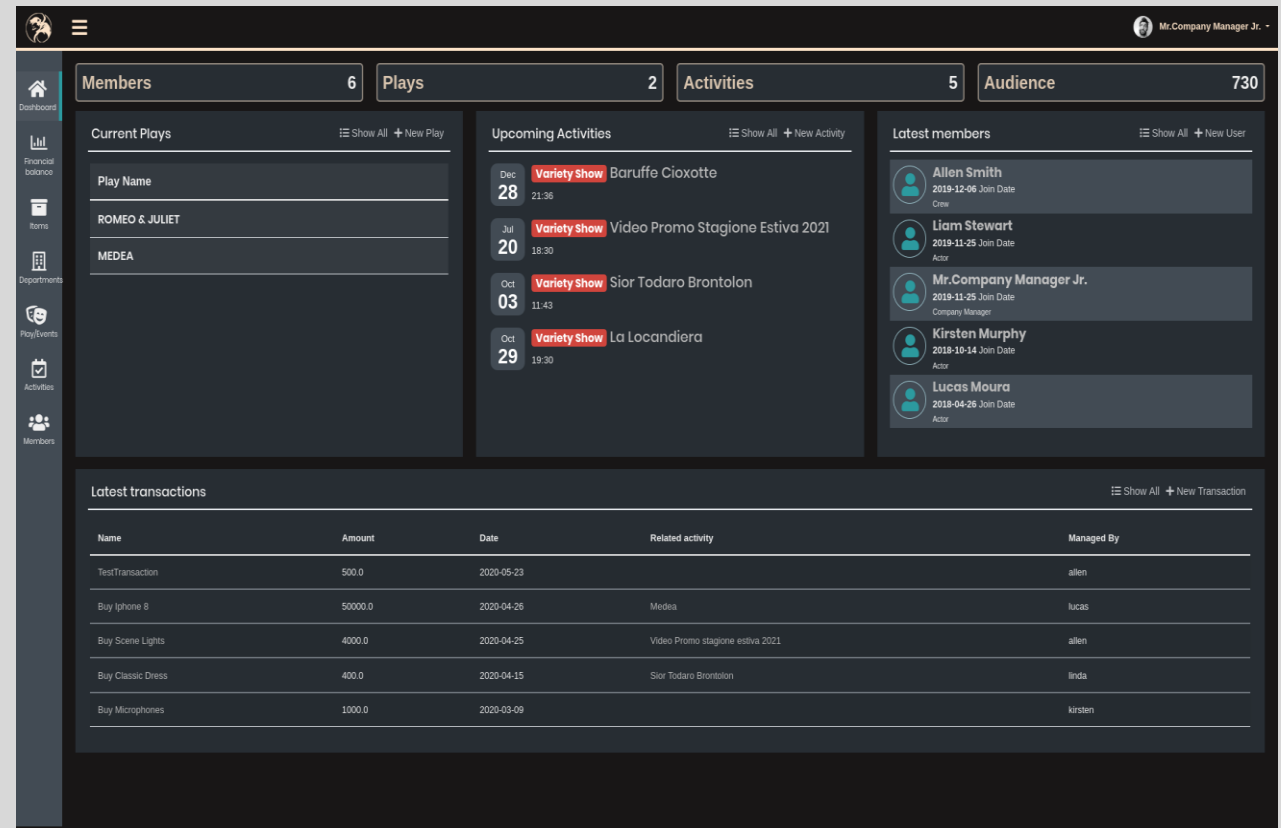
Common layout files:

- assets_footer.jsp – holds all the theme's JavaScript plugins
- assets_header.jsp – holds all the theme's CSS files
- footer.jsp – <footer> area
- header.jsp – <head> area
- sidebar.jsp – sidebar navigation
- top_navigation – top header and navigation

Main Dashboard: /dashboard

The main dashboard serves as the entry point in the administration interface after an user has logged-in. Its purpose is to give the user a higher-level view of the application and quick shortcut links to the rest of the app.

The page is server-side rendered. The **DashboardServlet** builds it up fetching all the required resources (most recent 5 of each): plays, upcoming activities, members, transactions + current stats.



Financial Dashboard: /financial

The financial dashboard follows the same principle but applied to only one category: the financial transactions.

By default, it displays the current year's most recent financial transactions with the ability to navigate to previous years through the tab navigation in the upper part.

It's rendered through a standard GET request that can also pass a `year` parameter in order to query and fetch a specific year transactions.

/financial?year=2019

2020

2019

2018

2017

2016

Year

2020

Revenues

€ 17,222

Expenses

€ 15,950

Total

€ 1,272

Incomings

⌵ Show All + New Transaction

Name	Amount	Date	Managed By
Rehearsals rooms, AY 2018/2019	850.55	15/09/2018	Jack Linn
Facebook sponsorship	20	25/04/2019	Marta Brown
Event offers	30	11/05/2019	Roland Berry
Rehearsals rooms, AY 2018/2019	850.55	15/09/2018	Jack Linn
Facebook sponsorship	20	25/04/2019	Marta Brown
Event offers	30	11/05/2019	Roland Berry
Rehearsals rooms, AY 2018/2019	850.55	15/09/2018	Jack Linn
Facebook sponsorship	20	25/04/2019	Marta Brown
Event offers	30	11/05/2019	Roland Berry
Rehearsals rooms, AY 2018/2019	850.55	15/09/2018	Jack Linn
Facebook sponsorship	20	25/04/2019	Marta Brown
Event offers	30	11/05/2019	Roland Berry
Rehearsals rooms, AY 2018/2019	850.55	15/09/2018	Jack Linn
Facebook sponsorship	20	25/04/2019	Marta Brown
Event offers	30	11/05/2019	Roland Berry
Rehearsals rooms, AY 2018/2019	850.55	15/09/2018	Jack Linn

Outgoings

⌵ Show All + New Transaction

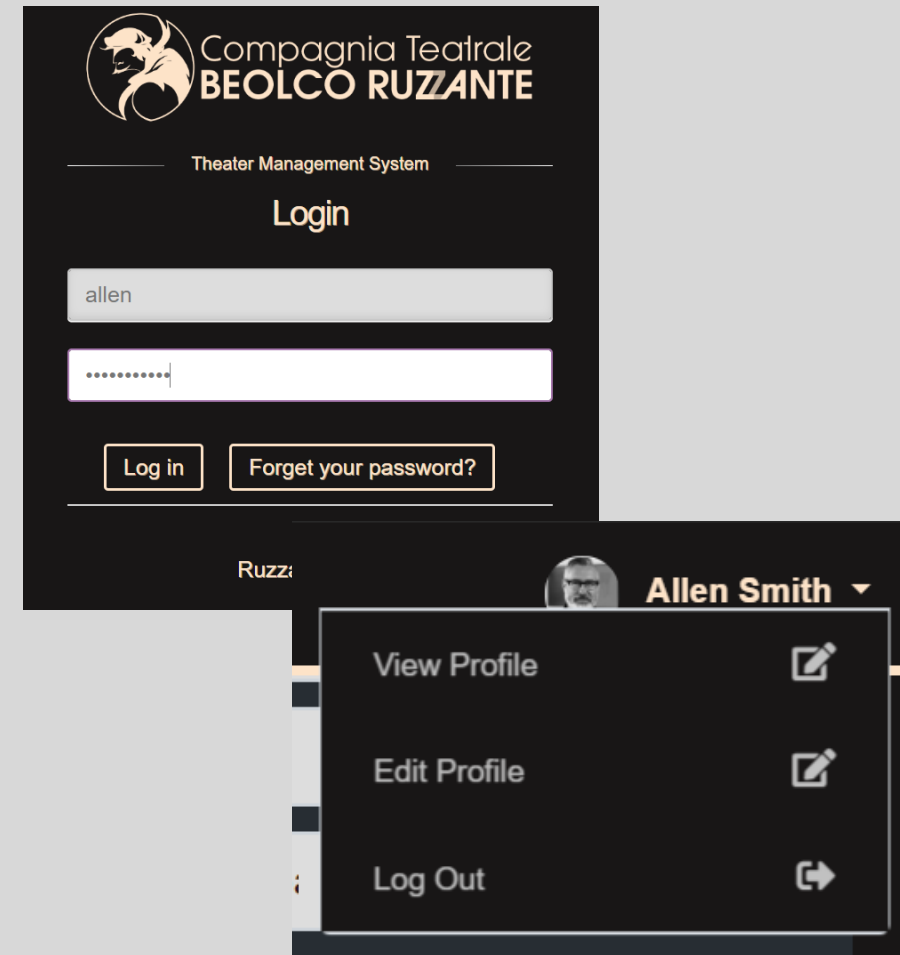
Name	Amount	Date	Managed By
Rehearsals rooms, AY 2018/2019	-850.55	15/09/2018	Jack Linn
Facebook sponsorship	-20	25/04/2019	Marta Brown
Event offers	-30	11/05/2019	Roland Berry
Rehearsals rooms, AY 2018/2019	-850.55	15/09/2018	Jack Linn
Facebook sponsorship	-20	25/04/2019	Marta Brown
Event offers	-30	11/05/2019	Roland Berry
Rehearsals rooms, AY 2018/2019	-850.55	15/09/2018	Jack Linn
Facebook sponsorship	-20	25/04/2019	Marta Brown
Event offers	-30	11/05/2019	Roland Berry
Rehearsals rooms, AY 2018/2019	-850.55	15/09/2018	Jack Linn
Facebook sponsorship	-20	25/04/2019	Marta Brown
Event offers	-30	11/05/2019	Roland Berry
Rehearsals rooms, AY 2018/2019	-850.55	15/09/2018	Jack Linn

Authentication and Authorization

The whole website, except for the login and the forgot password pages, is protected by the filter *ProtectedResourceFilter.java*.

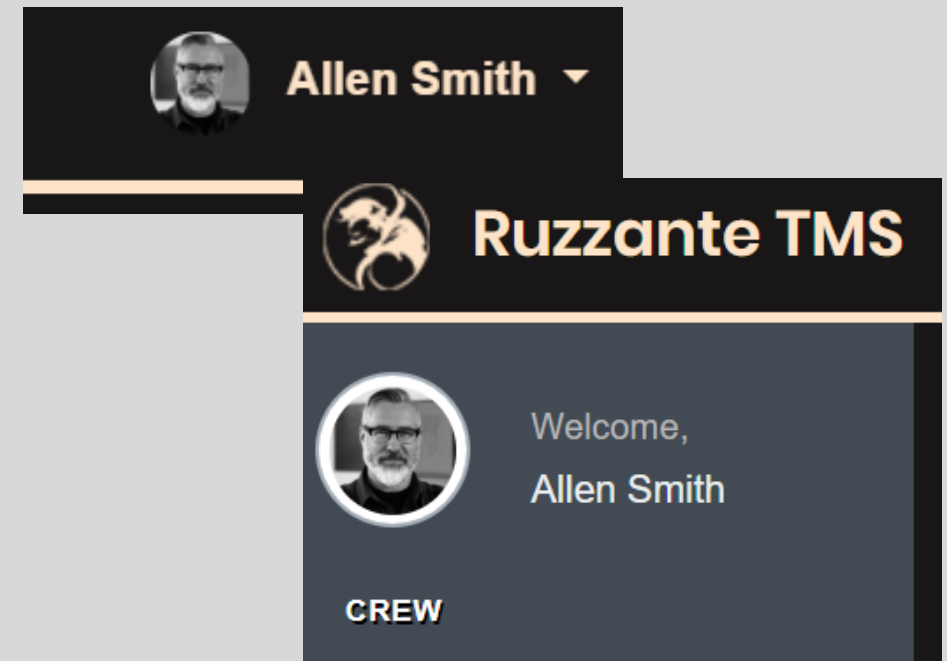
Performed tasks :

- Override the *init* and the *doFilter* methods of the basic authentication;
- Hide pages to users that do not have the privileges to access to them (through URL exclusion);
- Authenticate the user through a check of its credentials;
- Logout the user when the session times out from back-end;
- Send an authentication challenge each time the inserted credentials are empty or wrong (401 code - Unauthorized).



Authentication and Authorization

- The filter stores some temporary session variables (name, surname, photo and role) that are displayed to the user on the top navigation bar and on the sidebar, and that are used through many other pages;
- These values are discarded once the session is killed (redirecting to login page) with click on the logout button;
- The *LogoutServlet.java* invalidate the session and redirect the user to the login page.



View and edit user profile


The “View Profile” and “Edit Profile” pages are accessible from the top-right dropdown menu for the user.

They both work using AJAX for data retrieval, since:

- *View Profile* exploits *userviewplays.js*
- *Edit Profile* uses *ajax_useronly.js* to collect user information, and it uses an internal script which perform data and password update ('PUT').

Member Profile


Allen Smith



Season	Play	Task	Role / Spec. task
20202021	2	scenography	Actor
20202021	2	marketing	
20202021	2	playwriting	
20202021	1	playwriting	
20202021	1	marketing	

Member Profile

Personal Info



Name: Allen

Surname: Smith

Email: allen@domain.com

Phone Number: 35198781889

Upload Image: <https://media.creativemornings.com/uploads/user/>

Group: Crew

Change Password

New Password:

Confirm Password:

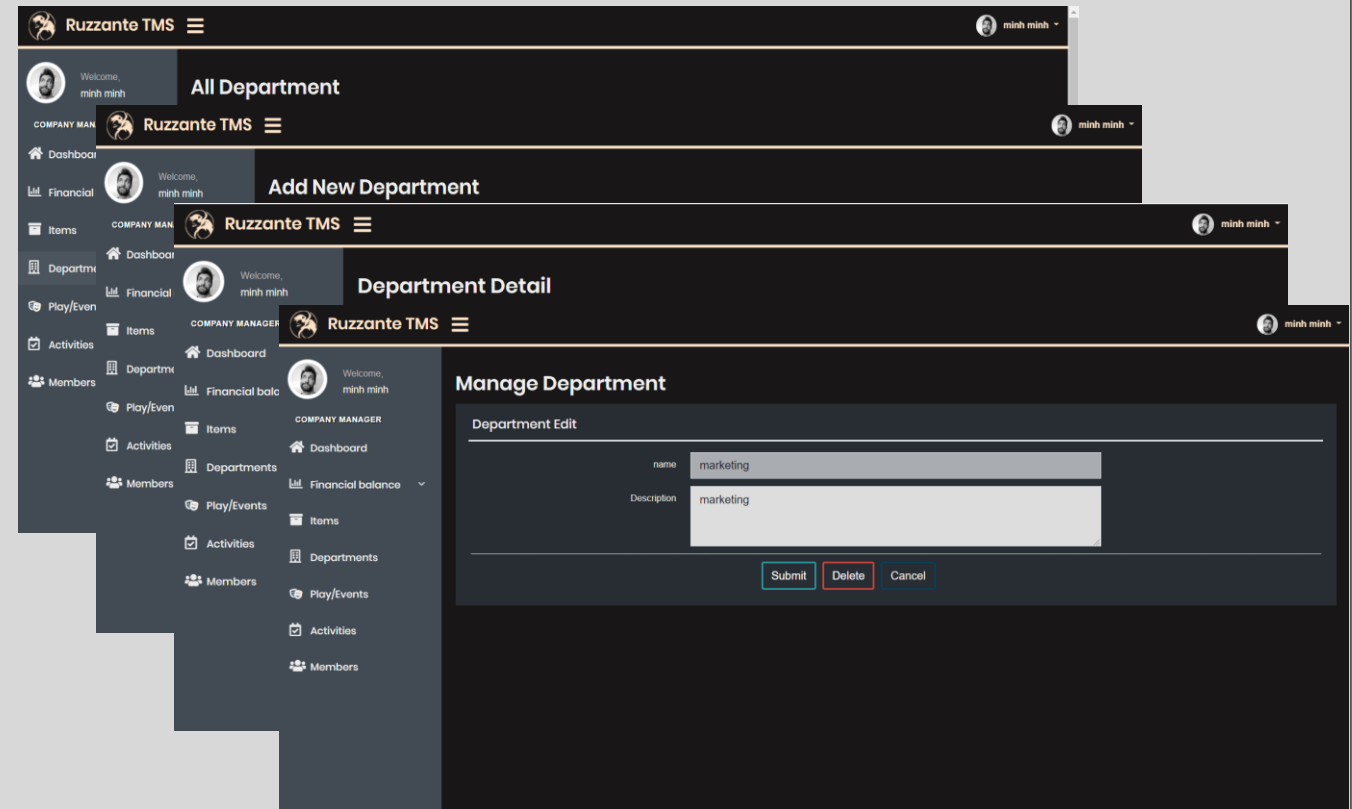
Confirm

Department

The department pages are responsible for managing the list and description of the departments in the theater. It includes functions to add, edit, delete and view details. By clicking the Department option in the side-bar, you can go to this part.

Department list, detail and edit pages are server-side rendered. Dedicated servlets for each page structure and for stats computation.

With each function, they are rendered through standard GET, POST, PUT and DELETE requests.



Department

The data of department are sorted by the department name (Primary Key). The addresses displaying for each department are.

All Department:

`./departmentlist`

New Department:

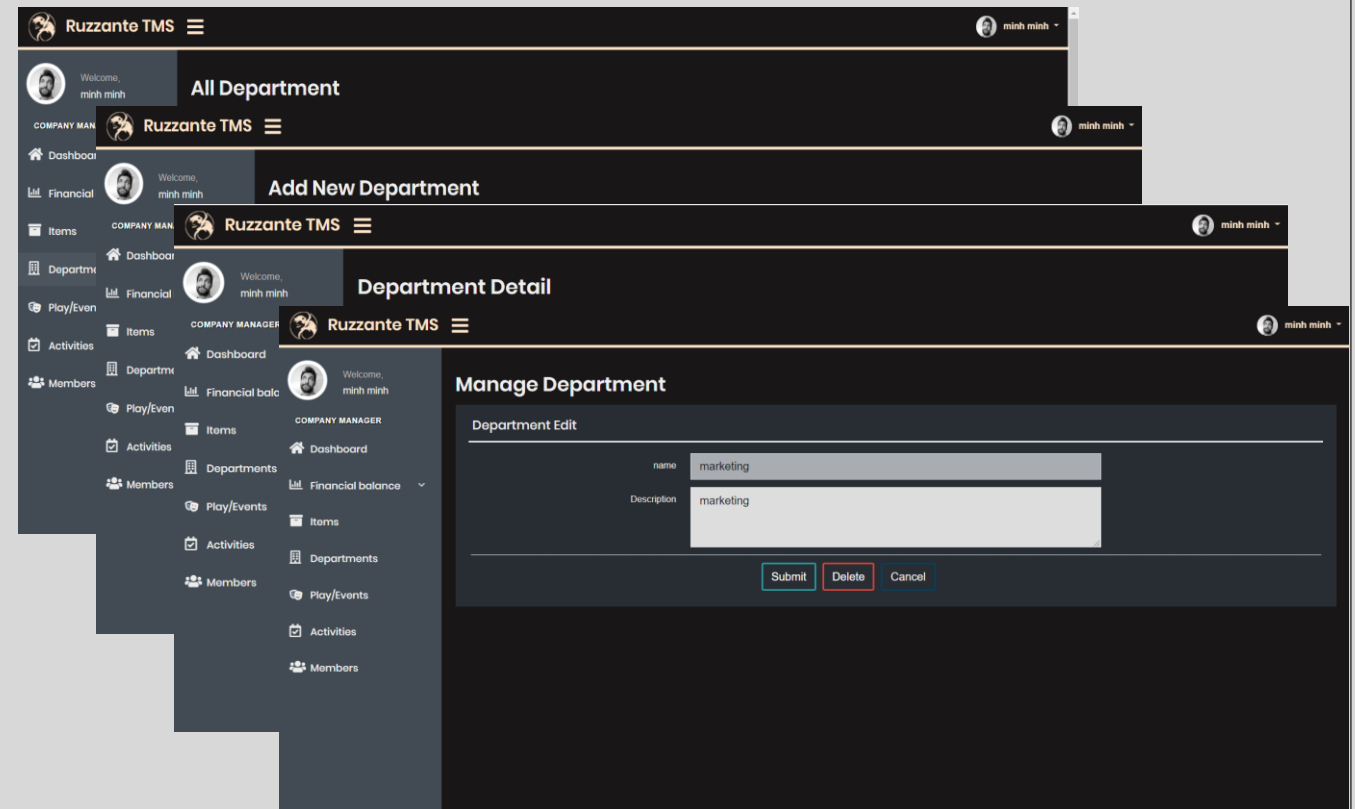
`./addnewdepartment`

Department Detail:

`./departmentdetail?name=hair`

Department Edit:

`./editdepartment?name= hair`

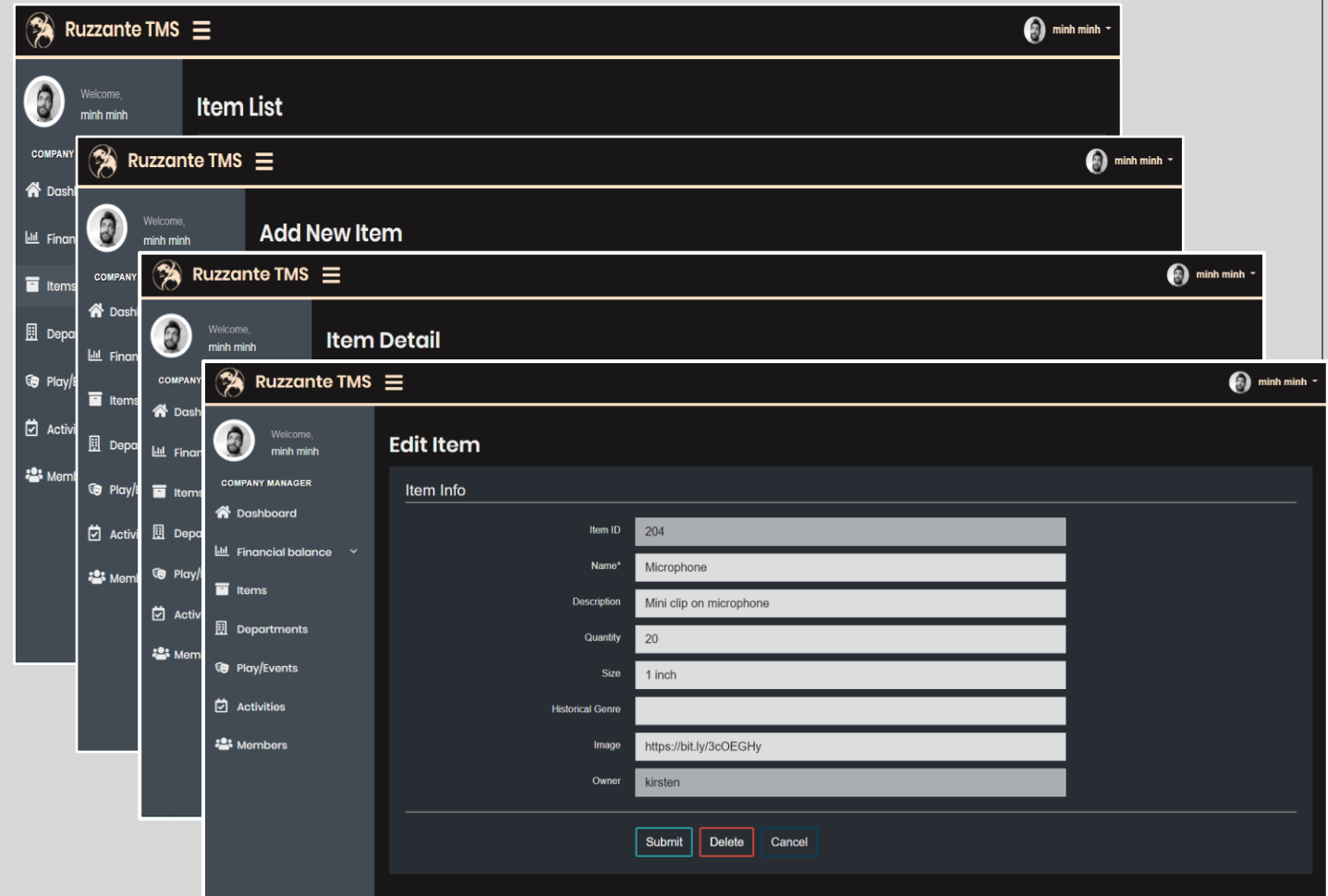


Item

The item pages control the information of the items. It includes functions to add, edit, delete and view details. To enter to item section, you can click to the “Items” option in the sidebar.

Different from department part, item uses AJAX to call custom-built REST API for dynamic, frequently-updated contents.

With each function, they are also rendered through standard GET, POST, PUT and DELETE requests.



Item

The data of items are managed by the item ID (Primary Key).
The addresses showing for each item are:

All Items:

`./itemlist`

New Item:

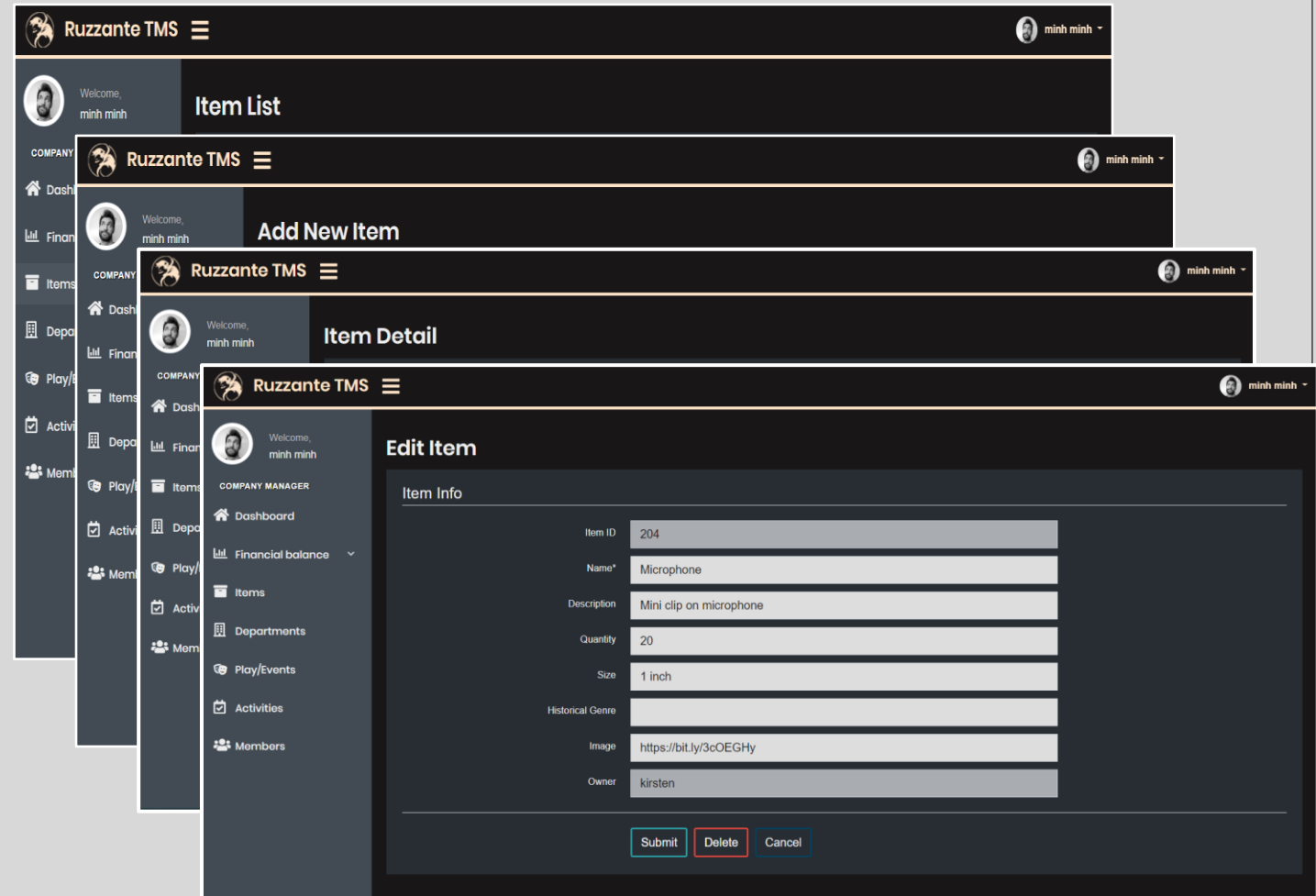
`./addnewitem`

Item Detail:

`./itemdetail?itemid=204`

Item Edit:

`./edititem?itemid=204`



Play/Event

Play/Events and its characteristics are needed in order to manage them and to get the Company aims. Play/Events has used the .jsp files, as it has been concluded the html and css part according to the requirements of the homework 1, they are as follows:

- new.jsp
- playlist.jsp
- playedit.jsp
- playview.jsp

These html pages helped us to implement the Ajax procedure in each one and have the connection with the database and java part.

Main Play: /playlist

The playlist shows the last plays that the company has managed. Also it is possible to add an new play and edit each one of the list.

The page is server-side rendered and it is supported by the **PlayListServlet** that builds all the resources in order to display the list.

List of Play or Event			
Latest		+ New Play/Event Type	
Title	Description	Duration	Edit Play
Medea	Perform from 2020 \n Performed in Padova May 2020 \n Pending to Paris December 2020	90	Edit
Romeo & Juliet	Perform until 2022 \n Pending to Paris December 2020 \n Pending to Hanoi March 2021	100	Edit

New Play: /new, /playedit, /playview

These pages are the extension of the principal page (playlist) and permit to the user the creation, editing and viewing of each of the plays.

Add Play

New Event

Information

Title*

ex. The New Opera Shakespeare 2019/2020

Description

Script Link

Duration

Poster Image Link

Rehearsal schedule

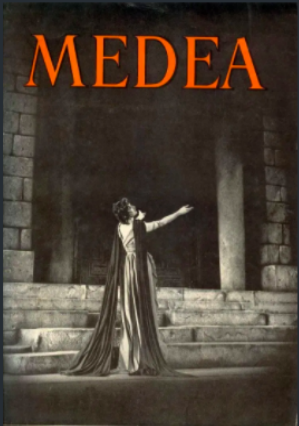
Reset fields

Create Play

Play Edit And Play View

Edit Play/Event

Play poster



Edit Play details

Play ID	500001
Title	Medea
Script	Scene 1 - [Outside the home of J
Poster Image Link	https://i1.wp.com/i1223.photobu
Duration*	90
Description	Perform from 2020
Rehearsal	The time expected is during Fridays from 10-01-2020 to 10-02-2020

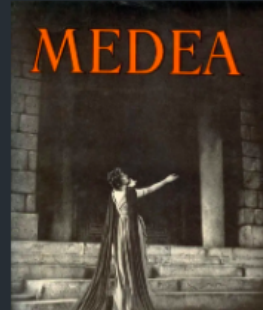
Reset fieldsSubmit EditDelete Play

Play View

BR4

Medea - Play details

[Edit this play](#)



Play ID	500001
Title	Medea
Description	Perform from 2020 \n Performed in Padova May 2020 \n Pending to Paris December 2020
Duration:	90 Minutes
Rehearsal:	6 weeks

- They are being supported by **PlayEditServlet** and **PlayViewServlet**. Also they are linked on the **RestManagerServlet** in order to implement the requirements of the user interactions.

Member REST resources

All the methods for listing/reading/editing member data, assignments of roles in plays and belonging to departments are made accessible in RESTful style with the URL scheme:

`/content/member/{username}/{ userrole | ispartof }`

The format for data exchange is JSON and the requests are fulfilled only if sent by authenticated users; belonging to the admin usergroup is required for write operations.

User management: /members

By clicking on the «Members» link on the sidebar, the administrator lands on the list of the company members, which is sortable and searchable.

From here the admin can insert a new member or, by clicking on the desired row, open the form for editing/deleting the selected user.

The error/success state of an operation is displayed by a red/green message appearing just below the submit buttons.

Member list + Add New Member

Show entries

Search:

Username	Name	Surname	Birth Date	Email	Phone	Is PRO	Is UniPD	Assign Play
allen	Allen	Smith	1991-12-10	allen@domain.com	3519870000	✗	✓	<button>Plays</button>
cm	Mr.Company	Manager Jr.	1994-01-14	liam@domain.com	35198786290	✗	✓	<button>Plays</button>
kirsten	Kirsten	Murphy	1996-11-20	kirsten@domain.com	35193286365	✗	✗	<button>Plays</button>
liam	Liam	Stewart	1994-01-14	liam@domain.com	35198786290	✗	✓	<button>Plays</button>

Personal Info

Name*

Birth Date*

email*

Telephone*

Departments

☒ marketing

☐ playwriting

☒ scenography

Ruzzante Related

Hiring Date*

Username*

User Group*

☐ Is Unipd

☒ Is Pro

Submit Reset Delete Member

The member allen has been updated in the system

Play assignment: /user2play

This page allow for assigning new task in a play.

The current and past assignments are listed in the right table, upon clicking on a row the data is loaded in the form on the left, allowing for deleting, editing or inserting a new task.

These operations are carried out by AJAX calls so the table is updated without reloading the whole page.

Assign Member to Play

Task in the play

Member

lucas

Add task

playwriting

Role / Specific task

e.g. Amleto, elettrician...

Play

Medea

Season

2020

Add role

Back

Delete Role

The user role has been added to the system

Assigned Plays

Season	Play	Task	Role / Spec. task
20182019	Romeo & Juliet	scenography	
20192020	Medea	playwriting	
20202021	Medea	playwriting	

Thanks for listening – Q&A Time

Project made in collaboration with:



Compagnia Teatrale
BEOLCO RUZZANTE