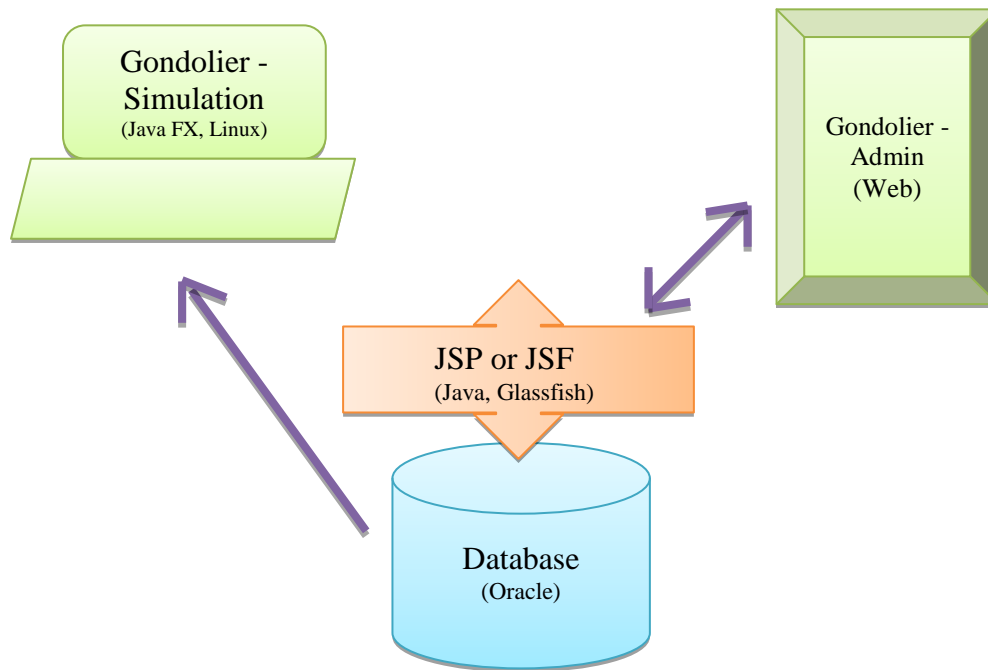


Overview

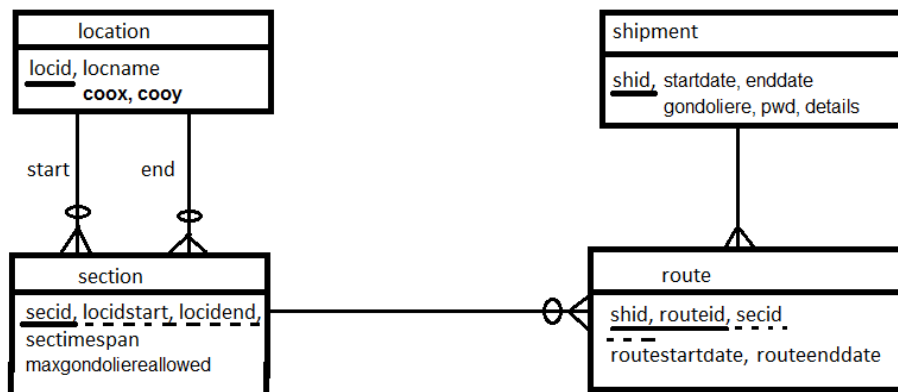
As Venice has problems with inrush of tourists, an appropriate software for gondoliers is necessary.

- gondoliers enter their shipments
- and simulate their drivings to get a more accurate time estimation for deliveries.

Architecture

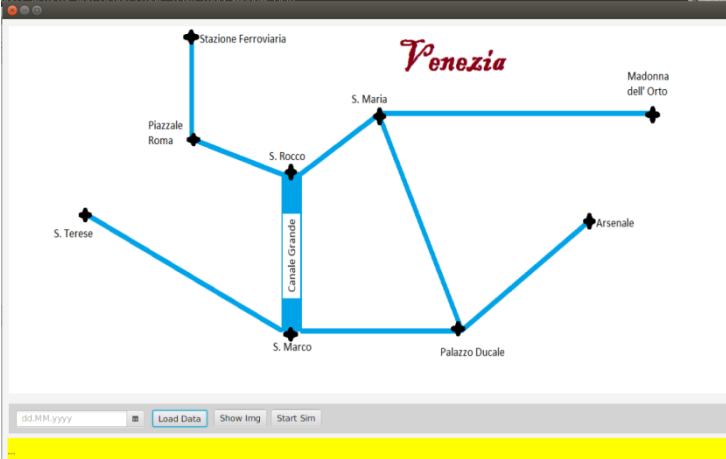
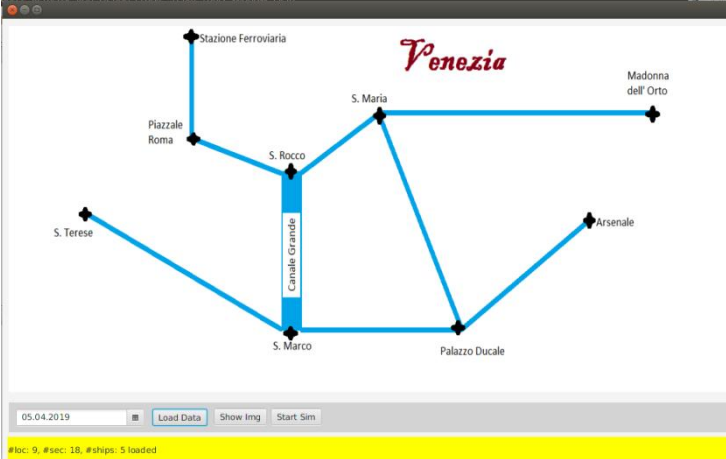
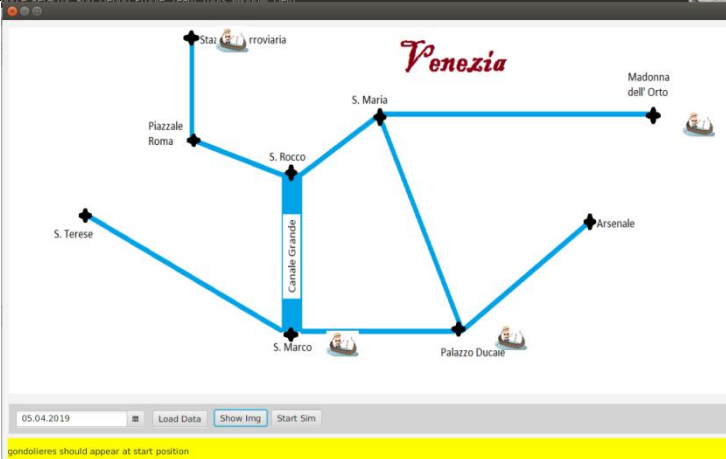


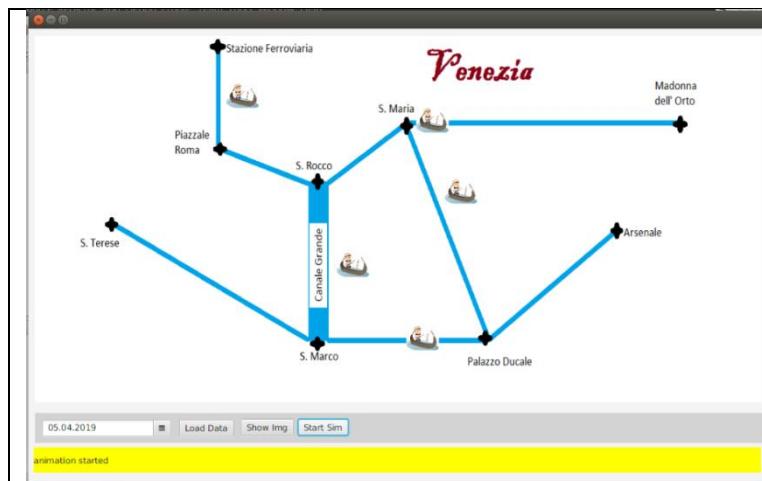
Data Dictionary



Batchfile with DDL – commands

Gondolier's Java FX Application

	<p>The app shows a map of all routes in Venice important for gondoliers. Each route can only be used by 1 gondolier at the same time (except the “Canale Grande” which has no upper limit).</p>
	<p>If we want to simulate the routes of the gondoliers at 8 am (as each gondolier starts working at this time)</p> <ul style="list-style-type: none"> • we have to load the geo-data of Venice • and the shipments of the gondoliers of the selected date.
	<p>“Show Img” displays the start position of the gondoliers (if gondoliers start at the same position, then we do see only 1 gondolier at this time)</p>



if we start the simulation, gondolieres are displayed rowing along the loaded routes.

Hints:

- x- and y-coordinates of locations are stored in table “location”;
- The simulated time (in msec) for a gondolier to drive on a certain channel is stored in table “section”. As a gondolier is no machine, the estimated time is random +/- 20% of stored time.
- Each section stores the number of gondoliers which can use this part at the same time.

Gondolier's Web Application

Gondoliers have to announce their shipments. Only (in table “shipment”) stored names and passwords are allowed

id Shipment	Gondoliere	Details
1	Paolo	4 persons
6	Paolo	pesce urgente

After correct login eg. “Paolo” sees his stored shipments.

The screenshot shows the 'Shipments Venezia 2019' web application. The title is 'List of Shipments'. The gondoliere is 'Paolo'. The map shows a route through Venice with sections labeled [1-11], [2-12], [3-13], [4-14], [5-15], [6-16], [7-17], [8-18], and [9-19]. The table on the right lists shipments:

id Shipment	Gondoliere	Details
1	Paolo	4 persone
6	Paolo	pesce urgente
11	Paolo	5 Americanos

Below the table, there are input fields for 'shipment-id' (11), 'shipment-detail' (5 Americanos), and a 'New shipment' button. There are also input fields for 'route#' (0), 'section-id' (0), and a 'New Route' button. A 'Back' button is at the bottom. A yellow bar at the bottom says '== add shipment done =='.

Paolo enters a new shipment (for today)
which is immediately shown ...

... and enters the route (sections in correct sequence) with the help of the flashing map.

Hints for Developer

- apps must run on the Ubuntu - VM
- any settings (for database, url etc.) have to be documented
- keep an eye on your SW – architecture
- delivery: zipped projects and an appropriate readme.txt