**Project: developing a web airfreight application for Gunsel's clients**

**Task:** develop an online web application for the company's clients. The application is supposed to allow the clients to calculate the aifreight cost depending on the input parameters

* ***The input***: type of cargo shipped (general, dangerous, express), weight, shipment dimensions in cm, airport of destination, air waybill cost
* ***The output***: rate applied based on the weight category, total cost of the shipment. The app should be available for mobile devices so that the clients could access it from everywhere

**Solution:**

* ***UX/UI:*** 
  + ***Target market:*** airfreight managers
    - Needs: simple and fast airfreight calculations taking into account different scenarios without having to read long printed-out/excel sheets
    - Values: speed, simplicity, standards compliance
  + ***UI design:*** based on the info gathered about the target market it was decided to stick to minimalistic design with as few elements as possible and only relevant ones. Following F-pattern concept the key content area was placed on the upper center of the page. An image of Turkish Airlines’ plane was included with view to emphasize the app’s connection to airline industry and, most important, Gunsel’s ties with Turkish Airlines (Gunsel is TA’s general sales agent in Ukraine)
* ***Web design:*** following the UX logic it was decided to use no more than two base colours, one font for header and one for content. To create a sense of balance an image of a plane was put under the content area. All info blocks were aligned both vertically and horizontally to create a sense of harmony in the design. A clickable button was styled so as to create a pleasant user experience inviting the user to discover the app
* ***Front-end development:*** 
  + ***Client-side:*** 
    - ***HTML:*** simple markup that should effectively work in old and new browsers
    - ***CSS:*** avoid using too new features, creating a fallback for gradients, using media queries to style the app for different screen sizes with key focus on the mobile
    - ***JS:*** applying JQuery library for retrieving the information and sending it to the server using AJAX. The output content block is renewed without page refresh.

Applying a JQuery plugin to create an autocomplete search form that helps the user to find a needed IATA three-letter airport code. To streamline the app execution speed a two-category array with countries and their corresponding IATA codes is downloaded via AJAX SQL query as the page is loading

* + ***Server-side:***
    - Using latest LAMP stack with PHP and SQL
    - ***PHP:*** most app logic realized using PHP and SQL queries. Once the servers receives the GET-request it parses it, checks the values and runs through multiple if-scenarios. The end result is echoed to the output content area.
      * *‘db-response.php’* is referenced to provide the results of the calculation
      * *‘search.php’ is referenced to extract the data for JQuery autocomplete plugin*
    - ***SQL:*** The initial database was carried over from Excel to SQL. PHP uses SQL queries to get the needed data based on the input