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**Introduction and Overview**

# 1 Instructions

## 1.1 Introduction

This document describes a short overview for the story around the test project to be performed during the Albert Einstein Cup 2024 in the Trades 08 and 09.

We advise you to read all documents within the sessions carefully and to get an overview over the provided media like attached images, appendices and texts.

The maximum time to complete as many tasks as possible will be given to you during the briefing time and is also written down for every session. Within this working time you have to read and understand all tasks and to save your results on your computer into the folder you will be informed about from the jury and the documents. For some sessions the results will also be marked directly on the devices.

You are free to perform the required tasks with all your skills using the tools provided. In addition to the media provided, it is of course possible to produce new media or to modify existing ones.

You are allowed and it’s recommended to use the results you get from sessions before.

During the familiarization time you can check the hardware, the server connections and the installed software. After the familiarization time the computers will not be reset.

You probably will not have enough time to complete all the formal and technical criteria of the tasks. In this case, you should choose those criteria which allow you to gain as many points as possible.

However, be careful to create a running, well-documented and error free version of the application. This running version will be evaluated.

**1.2 Evaluation**

Each task will be rated by the required functionality and implementation of the task.

In addition, the following criteria apply to all tasks and have to match your solution:

* All written code has to be properly formatted, indented and commented.
* All SQL queries have to be protected from any possible injections.
* No error should occur / proper exception handling is implemented.
* The Style Guide should be minded for all windows, apps and documents.
* For every session (!) you have to write at least a short documentation which allows the jury to discover your start file and explains how they can have access to your database.

**1.3 Deliverables**

All deliverables have to be saved into the folder ‘Session-Number-YourName’ on the desktop of your computer. The deliverables are executable files, documentations, source code and sometimes executable files for mobile devices. They must be conformed to the industrial standard. That means they must be given as copy deployments or similar solutions.

## 1.4 Hardware

The computer you will be working on has a 4 Core - Intel-i3 Gen 8 CPU and 16 Gigabyte RAM. You will develop in a MS Windows 10 environment. You will see your work on two displays by Samsung and Philips. For the development of the mobile app you will get several mobile devices which are suitable for these special tasks.

# 2 The Test Project

The **E**vent **A**gency **N**eu**B**randenburg is a (fictive) modern enterprise which organizes, manages and offers cultural events in Neubrandenburg and its environment.



While keeping our status as the region’s youngest and most vibrant enterprise, the **E**vent **A**gency **N**eu**B**randenburg offers a modern service for all needs around cultural events.

In order to deliver adequate services and provide data collaboration, analysis, and automatization, the management has decided to implement an automatized software system.

The system proposed will target different aspects of everyday operations for the management of the agency, as well as for the event presenters and organizers plus for the customers.

The IT department has compiled a few assignments from different departments and has detailed them in five sessions or test projects to be completed in the course of three days.

The special abilities of the IT specialists were kept in mind and therefore the specialists for mobile applications (Skill 08) develop in five sessions a special software for mobile devices and the fullstack developers (Skill 09) in three sessions a special software for desktop applications and in two sessions mobile and backend programs.