**Musala Soft project**

**School simulator**



**Presented by:**

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# 1. Description of the project

## Team members

|  |  |
| --- | --- |
| Team: | Role: |
| Plaman Kostov, 10B  PKKostov18@codingburgas.bg | Scrum Trainer, Developer Back-End |
| Kristian Lalev, 10G  KALalev18@codingburgas.bg | QA Engineer |
| Ilian Yanev, 10A  IMYanev18@codingburgas.bg | Developer Front-End |

## Topic

This project is about making teams with students with a particular role with teachers to consult to them. On our program you have different options and permissions with the different roles. You can store different kind of information in text files like databases. For example, you can store your account information or team information and then to visualize them.

## Roles

* + Admin – controls the school (add/remove a teacher/student etc.)
  + Teacher – the teachers can be registered in students’ team as well. They can check their team and nothing else.
  + Student – he can choose 4 roles in the school
    - Scrum Trainer – logs his team of 4 with 1 person per role, he can email the admin if there is something unclear for him and checking about the team.
    - QA Engineer – the people with this role can report their bugs and check their team.

Developer Back-End – only check their team.

* + - Developer Front-End – only check their team.

## Used technologies

* C++ - the program language that we used
* Visual Studio 2019 - used to create the program
* Excel – the test cases of the different functions in our program

# 2. Flowchart

# Download for better quality: https://codingburgas-my.sharepoint.com/:i:/g/personal/pkkostov18\_codingburgas\_bg/EdPpORafXE9OokNHtu3aUj0B1xDfmCVaHYr5OEtVMPMBww?e=GC1mvC

# 3. Used functions and their working

The functions are 4 types of abbreviation for internationalization:

## int

|  |  |  |
| --- | --- | --- |
| Functions | Description | Return value |
| Int tokenize() | It returns a special token for everyone in the school. | It returns a number of type int |

## bool

|  |  |  |
| --- | --- | --- |
| Functions | Description | Return value |
| bool isCharacter() | The function checks is the letter is from a to z capital and small letter. | It returns True if we inputted the right thing, else False. |
| bool isEmailValid() | The function checks if the registered email is in the system. | It returns True if we inputted the right thing, else False. |
| bool isClassnameValid() | This function checks if the classes in the school are valid. | It returns True if we inputted the right thing, else False. |
| bool checkAccAdminId() | The function checks the token, which means the ID of the admin. | It returns True if we inputted the right thing, else False. |
| bool checkAccStudentsId() | The function checks the token, which means the ID of the student. | It returns True if we inputted the right thing, else False. |
| bool checkAccTeachersId() | The function checks the token, which means the ID of the teacher. | It returns True if we inputted the right thing, else False. |

## struct

|  |  |  |
| --- | --- | --- |
| Functions | Description | Return value |
| struct STUDENT | The information about the student. | It returns the needed from the function. |
| struct TEAM | The information about the team. | It returns the needed from the function. |
| struct TEACHER | The information about the teacher. | It returns the needed from the function. |
| struct SCHOOL | The information about the school. | It returns the needed from the function. |
| struct EMAIL | The information about the email. | It returns the needed from the function. |

## void

|  |  |  |
| --- | --- | --- |
| Functions | Description | Return value |
| void mainMenu() | The start-up page in the school. | This function doesn’t return anything because it is type of void. |
| void loginMenu() | This function pops up if you chose the log menu if you already have an account. | This function doesn’t return anything because it is type of void. |
| void registerMenu() | This function pops up if you chose the register menu if you don’t have an account. | This function doesn’t return anything because it is type of void. |
| void deleteAccount() | This function deletes your account. (Admin only!) | This function doesn’t return anything because it is type of void. |
| void deleteTeams() | This function deletes the teams in the system. (Admin only!) | This function doesn’t return anything because it is type of void. |
| void editPassword() | This function edits the password on your account. | This function doesn’t return anything because it is type of void. |
| void editTeamName() | This function edits the name of the team. | This function doesn’t return anything because it is type of void. |
| void editTeamStatus() | This function edits the status of the team. | This function doesn’t return anything because it is type of void. |
| void adminMenu() | This function controls the school. (Admin only!) | This function doesn’t return anything because it is type of void. |
| void viewMenu() | This function shows the list with all of students, teachers, teams and to search by criteria. | This function doesn’t return anything because it is type of void. |
| void reports() | This function shows up the menu from where you can choose the students with and no team and the teams with less than 4 students. | This function doesn’t return anything because it is type of void. |
| void manageAccountsMenu() | This function manages your account. | This function doesn’t return anything because it is type of void. |
| void manageTeamsMenu() | This function manages the teams in the system. (Admin only!) | This function doesn’t return anything because it is type of void. |
| void emailMenu() | This function checks your name and description. | This function doesn’t return anything because it is type of void. |
| void viewEmails() | This function views all the emails in the system | This function doesn’t return anything because it is type of void. |
| void displayStudents() | This function displays the students in the school. | This function doesn’t return anything because it is type of void. |
| void displayParticularStudentsBackend() | This function displays particular students with the role Back-End. | This function doesn’t return anything because it is type of void. |
| void displayParticularStudentsFrontend() | This function displays particular students with the role Front-End. | This function doesn’t return anything because it is type of void. |
| void displayParticularStudentsQA() | This function displays particular students with the role QA Engineer. | This function doesn’t return anything because it is type of void. |
| void changeStudentsStatus() | This function changes the status of some students | This function doesn’t return anything because it is type of void. |
| void checkForMissingMember() | This function checks for missing members | This function doesn’t return anything because it is type of void. |
| void scrumMasterMenu() | The people, registered as Scrum Master, are redirected there. | This function doesn’t return anything because it is type of void. |
| void frontEndMenu() | The people, registered as Front-End, are redirected there. | This function doesn’t return anything because it is type of void. |
| void backEndMenu() | The people, registered as Back-End, are redirected there. | This function doesn’t return anything because it is type of void. |
| void QAEngineerMenu() | The people, registered as QA Engineer are redirected there. | This function doesn’t return anything because it is type of void. |
| void displayTeachers() | This function displays the teachers in the system. | This function doesn’t return anything because it is type of void. |
| void displayTeachersForTeams() | This function displays the teachers in their teams. | This function doesn’t return anything because it is type of void. |
| void teacherMenu() | This functions shows if you are registered as teacher. | This function doesn’t return anything because it is type of void. |
| void teacherRegisterMenu() | This function registers the teachers in the system. (Admin only) | This function doesn’t return anything because it is type of void. |
| void displayTeams() | This function displays the teams in the system. | This function doesn’t return anything because it is type of void. |
| void displayYourTeam() | This function displays your team in the system. | This function doesn’t return anything because it is type of void. |
| void teamRegisterMenu() | This function is for registering your team. (Scrum Master only!) | This function doesn’t return anything because it is type of void. |