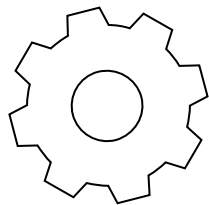


CS434



PROJECT DEMO

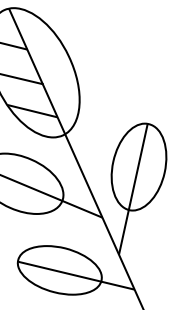
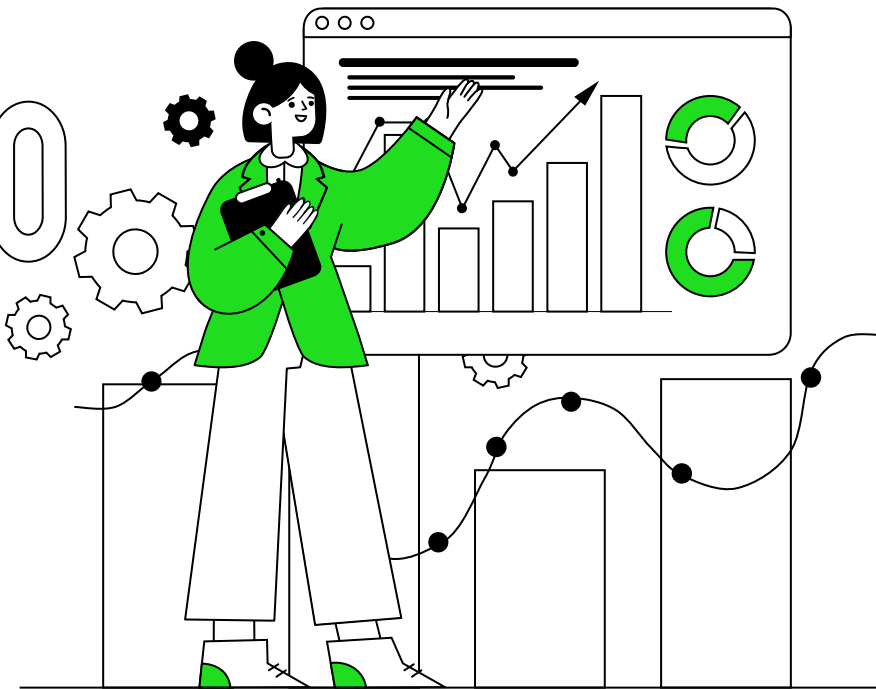
EXAM PORTAL

Group Members:

Yasemin Orhun

Yiğit İstanbullu

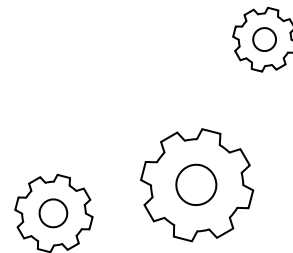
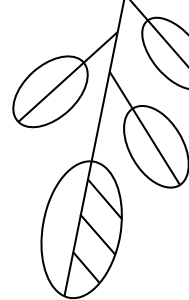
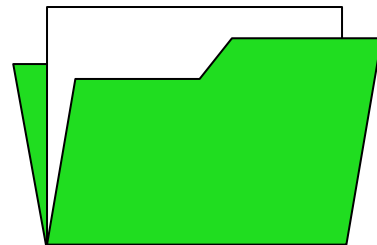
Zeliha Aydın



WHAT WE HAVE IN OUR EXAM PORTAL?

FEATURES

1. Login
2. Register
3. For Teachers:
 - a. Create Exam
 - b. Edit Exam
 - c. Grade Exam for attendees
4. For Students:
 - a. View and Attend Exams
 - b. Review Exam



PATTERNS WE USED



01

BUILDER

02

COMMAND

03

STRATEGY

04

FACTORY

05

SINGLETON

06

MADIATOR

07

FACADE

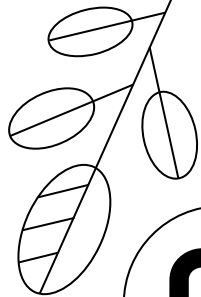
08

NULL OBJECT

09

MVC





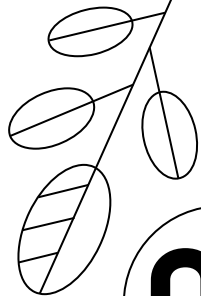
01

BUILDER

```
public class TextQuestion extends JPanel implements  
  
    public int questionId;  
    public int examId;  
    public int userType;  
    public int userId;  
    public String questionNumber;  
  
    public TextQuestion (Builder builder) {  
        this.questionId =builder.questionId;  
        this.examId =builder.examId;  
        this.userType = builder.userType;  
        this.userId = builder.userId;  
        this.questionNumber = builder.questionNumber  
        initComponents();  
    }  
}
```

```
public Builder withQuestionNumber(String questionNumber) {  
    this.questionNumber = questionNumber;  
    return this;  
}
```

```
.withQuestionNumber(String.valueOf(i+1)).withUserType(getUserType()).build();
```

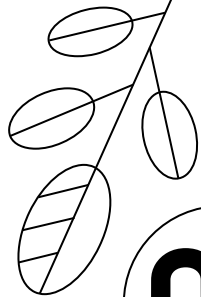


02 COMMAND



- ◉ EditMultipleChoiceQuestionFrame
- 📄 EditMultipleChoiceQuestionFrame.jfd
- ◉ EditMultipleSelectionQuestionFrame
- 📄 EditMultipleSelectionQuestionFrame.jfd
- ◉ EditQuestionCommand
- ◉ EditTextQuestionFrame
- 📄 EditTextQuestionFrame.jfd
- ◉ EditTrueFalseQuestionFrame

```
EditQuestionCommand frame = new EditTextQuestionFrame(getExamId(), SelectedQuestionId);  
frame.edit();
```

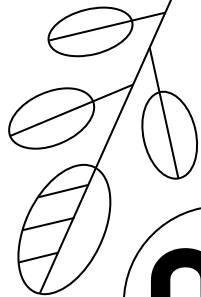


03

STRATEGY

```
(c) Question
  v (I) QuestionTypeBehavior.java
      (c) GapFillingQuestionBehavior
      (c) MultipleChoiceQuestionBehavior
      (c) MultipleSelectionQuestionBehavior
      (I) QuestionTypeBehavior
      (c) TextQuestionBehavior
      (c) TrueFalseQuestionBehavior
```





04

FACTORY

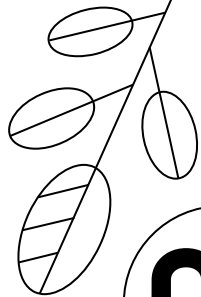
QuestionController

Factory

- GapFillingQuestionFactory
- MultipleChoiceQuestionFactory
- MultipleSelectionQuestionFactory
- QuestionFactory
- TextQuestionFactory
- TrueFalseQuestionFactory
- Question

```
public void createQuestion(){  
    getFactory().addQuestion(getQuest  
}
```

```
public abstract class QuestionFactory {  
  
    public void addQuestion( String question, double points, int examId, String keyAnswer, ArrayList<Str  
        createQuestion( question, points, examId, keyAnswer, availableAnswers);  
    }  
  
    public void deleteQuestion(int id){  
        QuestionModel model = new QuestionModel();  
        model.deleteQuestion(id);  
    }  
  
    public void updateQuestion(int questionId, String question, double points, int examId, String keyAns  
        editQuestion(questionId, question, points, examId, keyAnswer, availableAnswers);  
    }  
  
    public void updateQuestionForGapFilling(int questionId, String partOne, String partTwo, double poin  
        editQuestion(questionId, question: partOne+ " "+partTwo, points, examId, keyAnswer, availableAnswers);  
    }  
  
    protected abstract void createQuestion(String question, double points, int examId, String keyAnswer  
    protected abstract void editQuestion(int questionId, String question, double points, int examId, Str
```



05

SINGLETON

```
package Controller.UserController;

public class Password {
    private static String key;
    private final static Password instance = new Password(key);

    public Password(String str) { this.key = str; }

    public static String getKey() { return key; }
```



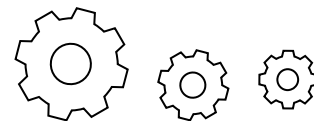
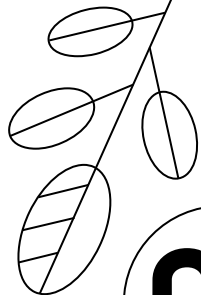

06

MADIATOR



```
▼ [icon] UserController
  [C] Instructor
  [I] Mediator
  [C] MediatorImp
  [C] Password
  [C] Student
  [C] User
```





07

FACADE

- ▼ View
 - ▶ EditQuestions
 - ▼ ExamQuestions
 - GapFillingQuestion
 - GapFillingQuestion.jfd
 - MultipleQuestion
 - MultipleQuestion.jfd
 - MultipleSelection
 - MultipleSelection.jfd
 - Question
 - QuestionFacade
 - **QuestionMaker**
 - QuestionsPage
 - QuestionsPage.jfd
 - TextQuestion
 - TextQuestion.jfd
 - TrueFalseQuestion
 - TrueFalseQuestion.jfd

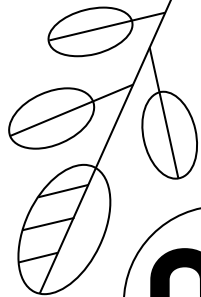
```
public QuestionMaker(int questionID, int userID) {
    gapFilling = new GapFillingQuestion(builderGap);
    multipleChoice = new MultipleQuestion(builderMultiple);
    multipleSelection = new MultipleSelection(builderSelection);
    text = new TextQuestion(builderText);
    trueFalse = new TrueFalseQuestion(builderTrueFalse);
    this.questionID = questionID;
    this.userID = userID;
}

public void createGapFilling(){
    gapFilling.disableGradeFieldForStudent();
    gapFilling.removeGradeForExamination();
    gapFilling.setAnswerForReview(questionID, userID);
    gapFilling.setComponents(questionID);
}

public void createMultipleQuestion(){
    gapFilling.disableGradeFieldForStudent();
    gapFilling.removeGradeForExamination();
    gapFilling.setAnswerForReview(questionID, userID);
    gapFilling.setComponents(questionID);
}

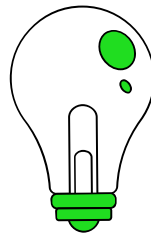
public void createMultipleSelection(){
    gapFilling.disableGradeFieldForStudent();
    gapFilling.removeGradeForExamination();
    gapFilling.setAnswerForReview(questionID, userID);
    gapFilling.setComponents(questionID);
}

public void createText(){
    gapFilling.disableGradeFieldForStudent();
    gapFilling.removeGradeForExamination();
    gapFilling.setAnswerForReview(questionID, userID);
    gapFilling.setComponents(questionID);
}
```



08

NULL OBJECT



```
▼ Controller
  ▼ ExamController
    I Exam
    C Examination
    C NullExam
    C User_Exam
```



09

MVC

```
▼ CS534 ~/Desktop/School/CS534
  ► .idea
  ▼ src
    ▼ main
      ▼ java
        ► Controller
        ► Model
        ► View
```



THANKS!

TIME FOR DEMO

