Algonquin College Logo

# SCHOOL OF ADVANCED TECHNOLOGY

### ICT - Applications & Programming

### Computer Engineering Technology – Computing Science



A21

Game MVC

Team:

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NumPuz Proposal

***This template is suggested (not mandatory) to answer A21 Specification.***

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| --- | --- |
| **Part**  **1** | **GUI Definition** |

* 1. **MVC Details**

*Describe the way you can define the MVC components in your game.*

**Example** (from vision “top-down”)

Class: JFrame – Object: “GameFrame”

→ Class: JPanel → Object: “GameuBoard”

→ Class: JButtons → Objects: “BSave”, “BLoad”, etc.

→ Class: JLabel → Objects: “LabOperation”, “LabName”, etc.

…

* 1. **View Component**

*Describe how your interface should be organized using new components. Show the idea about your “top-down” organization.*

* + - ***Example****:*

**Example** (from vision “top-down”)

Class: JFrame – Object: “mainFrame”

→ Class Layout: BorderLayout → Objects: “mainFrame”.

→ Class: JPanel → Objects: “gamePanel”

→ Class Layout: BorderLayout → Objects: “gamePanel”

→ Class: JPanel → Object: “controlPanel”

→ Class Layout: GridBagConstraints → Objects: “controlPanelGridBag”.

→ Class: JButtons → Objects: “gameboard[ ]”, “numPuzButton”, “gameChoice”, “show”, “hide”, “save”, “load”, “random”, “finish”.

→ Class: JLabel → Objects: “radioHeader”, “statusLabel”, “movesLabel”, “pointsLabel”, “dimLabel”, “typeLabel”.

→ Class: JRadioButton → Objects: “desginRadioButton”, “playRadioButton”.

→ Class: JComboBox → Objects: “dimensionChoices”.

→ Class: String → Objects: “dimensionsComboBox”, “gameType[]”, “gameLogo”, “newGameLogo”, “solutinoGameLogo”, “exitGameLogo”, “colorsGameLogo”, “aboutGameLogo”.

→ Class: Int → Objects: “WIDTH”, “HEIGHT”, “dimension[]”.

→ Class: ImageIcon → Objects: “gameLogoIcon”, “newLogoIcon”, “solutionLogoIcon”, “exitLogoIcon”, “colorsLogoIcon”, “aboutLogoIcon”

→ Class: JMenuBar → Objects: “menuBar”.

→ Class: JMenu → Objects: “gameMenu”, “HelpMenu”.

→ Class: JMenuItem → Objects: “helpMenuItem1”, “helpMenuItem2”, “gameMenuItem1”, “gameMenuItem2”, “gameMenuItem3”.

→ Class: GameController → Objects: “gameController.”

* ***Note****: The professor interface continues being a proposal. Focus on your ideas using the best user experience.*
  1. **Controller Component**

*Describe aspects of your controller using, for example, one unique action command. Create the “map” to define functions with actions.*

**Example**

Object: “BSave”

→ Event: actionPerformed → method: saveGame()

Etc.

* 1. **Model Component**

*Finally, what is your idea to define the model to be used in a “default” (randomized) game.*

**Example**

Data structure used:

→ Values: gridValue → method: updateData()

|  |  |
| --- | --- |
| **Part**  **2** | **Implementation Design** |

* 1. **Game Evolution**
  + *Considering this new model, explain:*
    - *What are the differences between the original proposal (A11) and the current project to be developed (A21).*
    - *If so, explain why you need to do some adjustments.*
  1. **Others DP**
     + *Define (at least one) additional DP that you could use in your Game application.*
  + *Explain what is this DP and the reason why it could be recommended.*

**References**

*[Include eventual references used here]*

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