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| |  | | --- | |  | | **PES University, Bengaluru** |
|  | (Established under Karnataka Act 16 of 2013) |
| **Department of Computer Science & Engineering** | |
| **Session: Jan - May 2022** | |

**UE19CS353 – Object Oriented Analysis and Design with Java**

**Theory ISA (Mini Project)**

Report on

**Game Box**

**By:**

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**6th Semester D**

1. **Project Description**

**This project has 3 components**

* **Login/registration**
* **The Game Box-Here user has can choose between various games to play**
* **Leader board-Present for every game and is accessed via mysql databaSE**

**Link to Github repository-**[**https://github.com/manasiswain/game-box**](https://github.com/manasiswain/game-box)

1. **Analysis and Design Models**

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**Diagram, engineering drawing

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1. **Tools and Frameworks Used**

* **Eclipse IDE**
* **Java Swing**
* **JDBC**
* **MySQL Workbench**

1. **Design Principles and Design Patterns Applied**

**Text

Description automatically generatedSingleton class**

**Used in:fgame class**

**Command pattern**

**Text

Description automatically generatedUsed in: Minesweeper class**

**The command pattern is a behavorial design pattern in which an object is used to encapsulate all information needed to perform an action or trigger an event at a later time. All game specific information is encapsulated there.**

**MVC design pattern**

**MVC design pattern is used using Java swing**

**M is the database schema**

**V is the UI**

**C is the fgame class that coordinates application**

1. **Graphical user interface, text, application

   Description automatically generatedApplication Screenshots (3-4 important pages)**

**Graphical user interface, text, application, chat or text message

Description automatically generatedGraphical user interface, text, application, chat or text message

Description automatically generated**

**Graphical user interface

Description automatically generated**

**Chart, scatter chart

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**Graphical user interface, text, application, chat or text message

Description automatically generated**

**A screenshot of a computer

Description automatically generated with medium confidenceGraphical user interface, text, application, chat or text message

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1. **Team Member Contributions**

* **Manasi Swain-Minesweeper Game , Entire external system(login/register , Database Interaction, mvc)**
* **M Satvika-Flappy Bird Gamee**
* **Meela Deepti-Snake game**