DESIGN DRAFT SUBSMISSSION

TO: UDARA

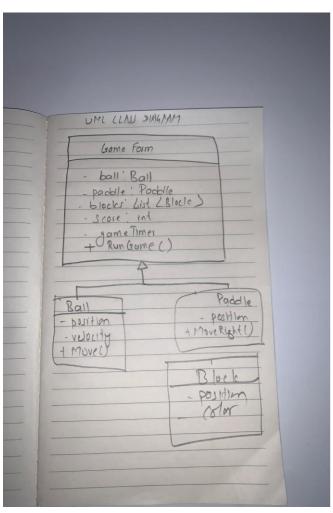
Abstract

NAME: SIJAN PARAJULIN

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- **Top-Down Deconstruction:** It will be built on Main Form (Form1) which handles input, game loop, rendering, and game state. The game Elements will be Player paddle (player), Ball (ball) and Blocks (blockArray). The Mechanics is based on collision detection (ball with blocks, player, walls), scoring, reset and over logic.
- Form Design Summary: The design includes a timer control for running the game loop and PictureBoxe for the paddle, ball and the blocks. And there will be Label/TextBox to show score (txtScore).

• UML Class Design Here's a basic UML-style design:



Iterative Refinement of Methods

Refinements could include:

- Split gameTimer_Tick into smaller methods: e.g., CheckCollision(), MoveBall(), UpdateScore().
- Use OOP for game objects: Block with a Destroy() method, etc.
- Decouple logic from UI for easier testing.

Algorithm Design - Collision Detection

Collision logic will be:

- Loop through controls with Tag == "blocks"
- Use Bounds.IntersectsWith() to check collision
- Change direction & update score.

Resources: I have used some online sites, some help of Chatgpt and my friend's help to make the draft.