

Java Programming Assignment

Paddlify is a round-based game where each second round the player can decide whether to move a paddle at the bottom of the screen left, right, or keep it where it is. A ball moves with constant speed of one field per round and bounces off the paddle and the side and top edge of the screen. If the ball hits the bottom edge, then the player loses. There is a set of fixed bricks in the upper half of the screen, if a ball hits one or more bricks, the bricks disappear and the ball bounces back. Extensions: (1) Red bricks allow to move the paddle each round for 30 rounds, (2) Green bricks make the ball destroy bricks but not bounce for 40 rounds, (3) Blue bricks make the ball stick to the paddle until the user presses space, then the ball continues to fly, (4) Yellow bricks explode and destroy bricks next to them when hit.

Your Tasks (Teams of 2 students)

- Analyze the text and create a design.
 - Draw one high-level and four detailed UML diagrams. (Use each type (class, object, sequence diagram) at least once!)
 - Draw and explain in text at least one possible future enhancement.
- ⇒ Give **printout** & send **email** with diagrams and explanations to Berna Altinel until **26.10** in the lecture.
- Implement the game +1 enhancement in Java in text mode:
(1) print current status to console (2) wait for button press (left/right/space) (3) update game state (4) goto (1)
 - **NO GUI, NO SOUND**, run with `java -jar YOUR.jar`
- ⇒ Send **source, jar file** to Berna Altinel until **16.11**.
- Create a class diagram from your final source code.
 - Write 5 sentences of conclusion about the difference between your first UML diagrams and the final one.
- ⇒ Give **printout** & send **email** of diagram and conclusions to Berna Altinel and sign up for **interview** until **30.11**.