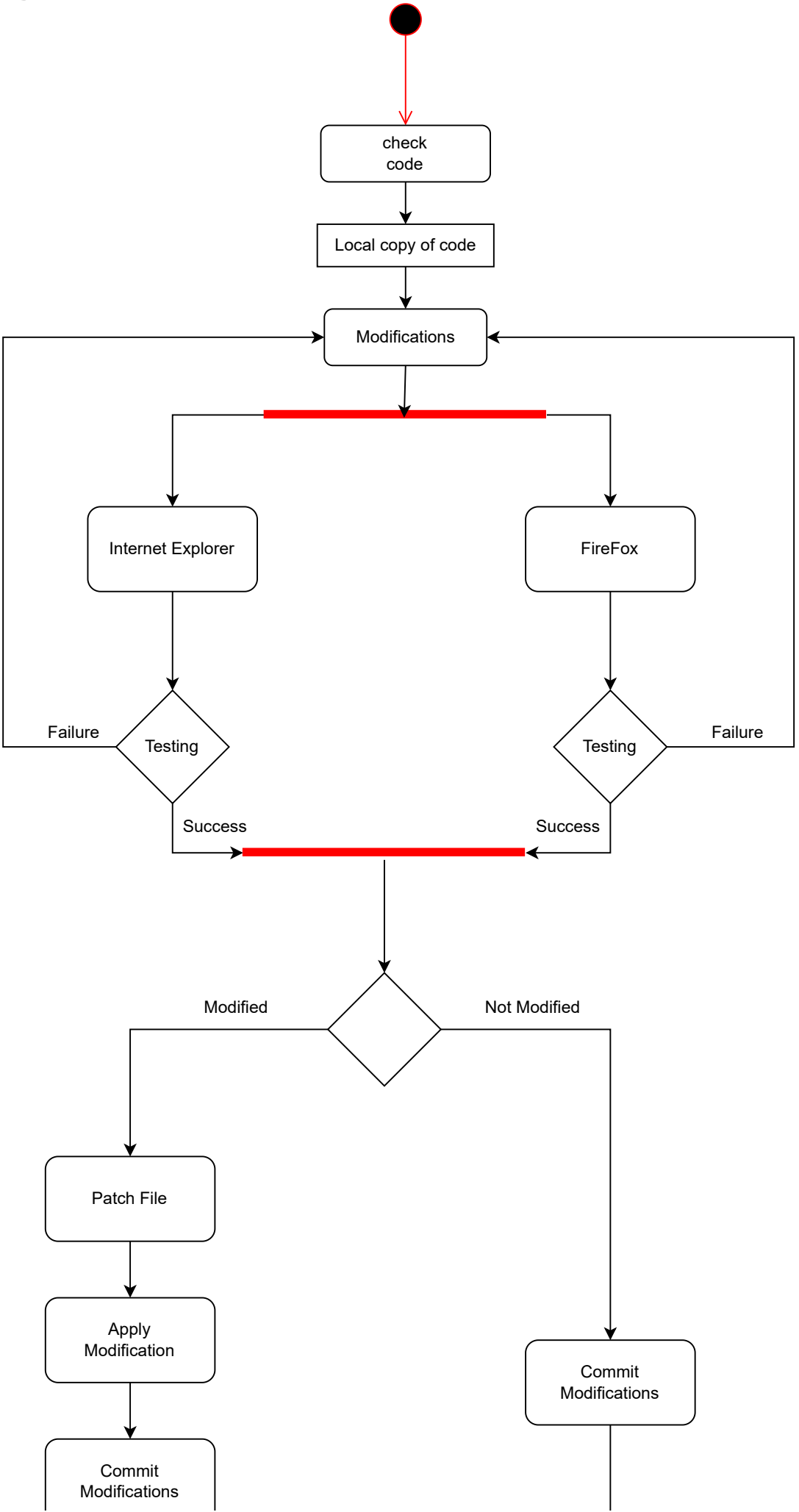
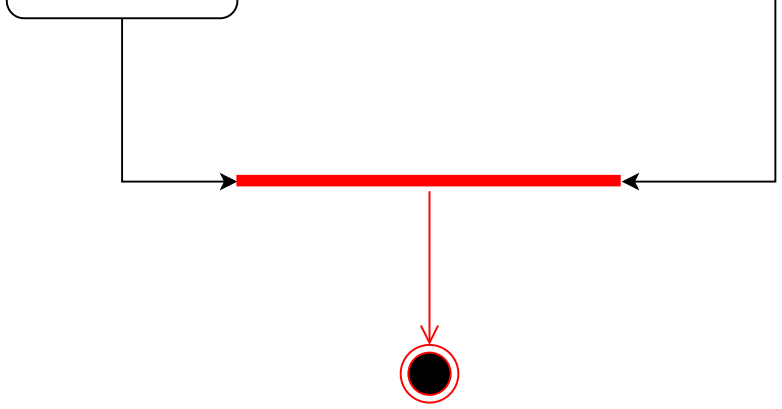
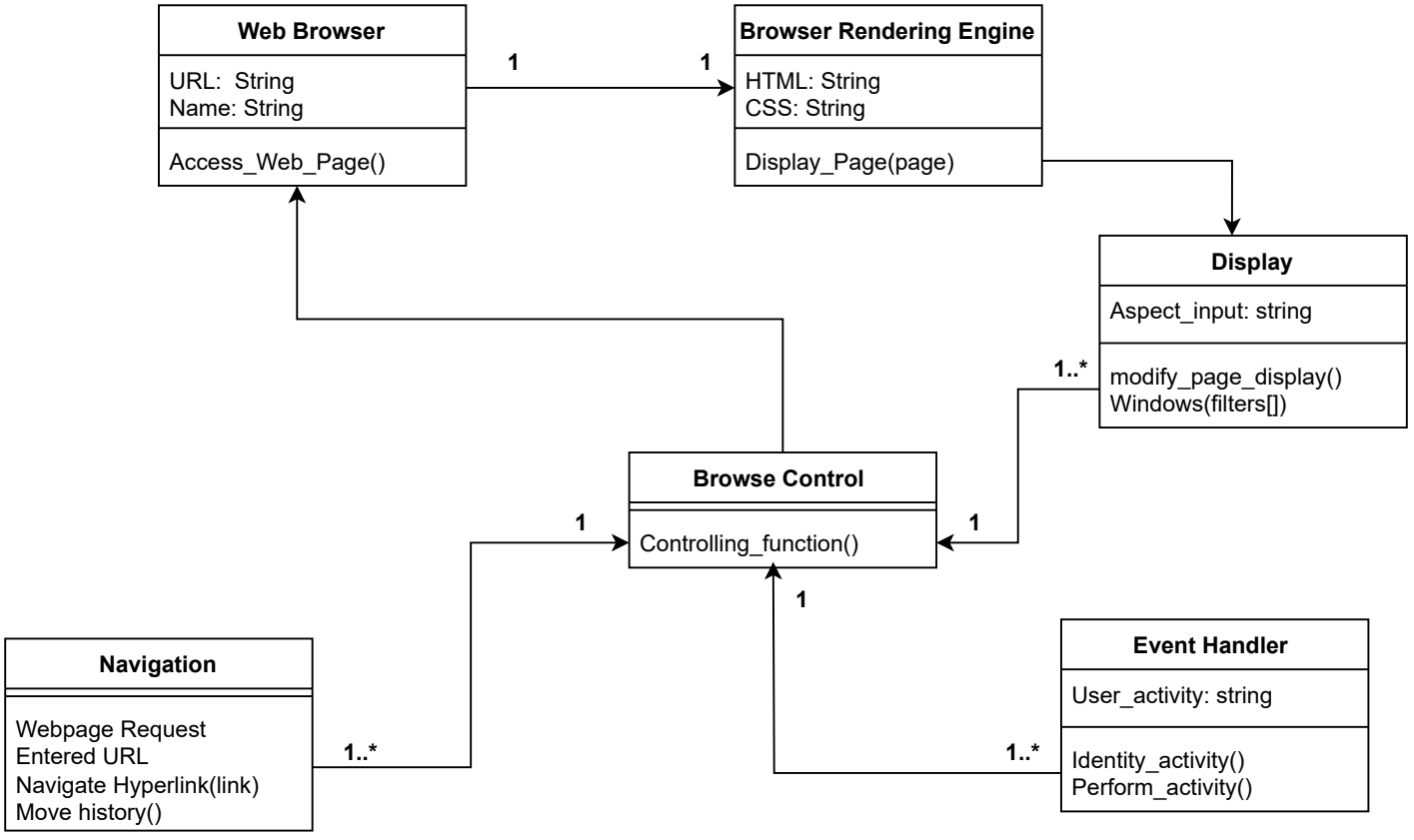
Activity Diagram:





Class Diagram: