**Case Study – 6  
(40 points)**

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**Submission**: Save this Word document with your answers as a PDF file and upload the PDF file to Canvas.

(10 pts) Build an object model for the EVCSS Project. You should have a super-class, class and subclasses. Remember, we are modeling the system level objects not low-level software objects. Your objects need to have both methods and attributes. (Fig 6.1, Fig 6.2 & Fig 6.6)

A screenshot of a computer

Description automatically generated with low confidence

(10 pts) Build the class hierarchy diagram w/cardinality for the EVCSS Project based on your object model above (Fig 6.17)

A picture containing diagram

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(10 pts) Build 2 use cases for the EVCSS Project (Fig 6.15)

Diagram

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(10 pts) Build 2 state transition diagrams for the EVCSS Project (Fig 6.20). Each diagram must have at least 5 unique states (not counting the start and end states).

Diagram

Description automatically generated

Use one of the diagramming tools identified on the “External Tools Page” in Canvas.

More information on UML Class diagrams can be found at O’Reilly Learning in *UML Distilled: A Brief Guide to the Standard Object Modeling Language*, by Martin Fowler.