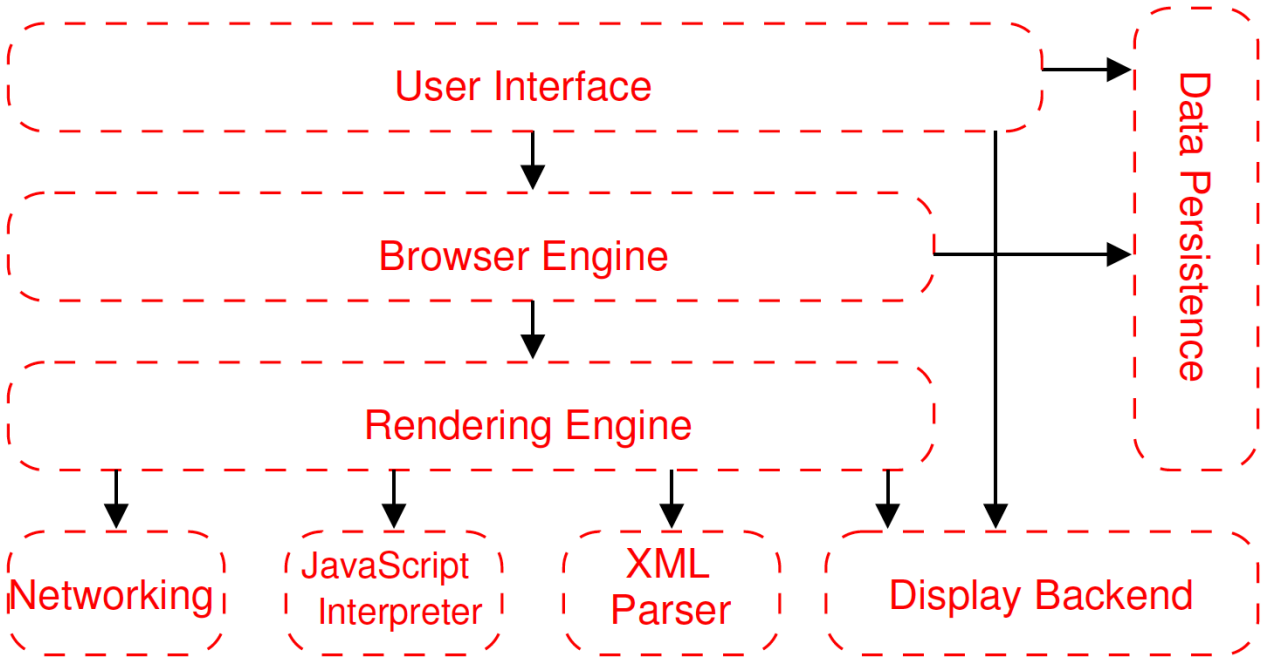
Question 1: Give an example of a system that may apply a combination of Object Oriented and Interpreter architectural style. Your answer should not provide much details. you are just to clarify why you would like to apply this combination on your suggested system.

The system needs both the advantages of OO and Interpreter such as a good simulation or understandable system (they both provide good simulation and understand-abilities) and the flexibility which can use the portability from interpreter and the reusability from OO. A system that use interpreter to implement OO tasks should adopt a combination of both the styles. The operating system user interface can be an example.

Question 2: In your opinion, do you think the interpreter architectural style can be one of the applicable styles to the scenario of a web browser? Justify your answer by showing what some components and connectors can be.

Below is the architecture of a web browser:



Depending on the lecture notes, components and connectors in interpreter are:

Components: Include one state machine for the execution engine and three memories:
• Current state of the execution engine
• Program being interpreted
• Current state of the program being interpreted
Connectors:
• Procedure calls
• Direct memory accesses.

The states in the diagram organise the components while the arrows implement connectors.

Question 3: As an architect, how would you choose a programming language for your architecture. Just list some features or reasons that you would consider.

C++ and Java for OOP, Lisp and Scheme for Interpreter.

Some languages are created for some certain styles so they can fit the features and the tasks for the architecture appropriately. If the specialty of the languages is unknown, the implications or results of the language should be assessed to see if it can implement the tasks and solve the problems that are related to the preferred architectural style.

Question 4: List one disadvantage of OOAS, explain why it is a disadvantage, i.e. what negative impact occurs.

Program is a bit larger for OOAS because all classes and functions are created based specified objects to make it understandable.

The negative impact of large size is that it needs more memory to store and execute the program. It was a big disadvantage in the early days of computing.