MEIC - Software Engineering – 2014/15
6th Practical class - UML modeling project - Part 3: Architecture modeling

Consider again the Electronic Prescribing System.

a) Add to the UML model a **component view**, and create therein a **component diagram** identifying relevant software components, interfaces and dependencies (see examples in the theoretical classes). In the 'notes' field, write a small description for each component and interface. You may use packages to group components per subsystem (Electronic Prescribing Applications, Prescriptions' Central System, etc.). Regarding the Electronic Prescribing Applications, indicate a set of components that allow building the several types of applications indicated previously (web applications, applications for installation on personal computers, and applications for installation on mobile devices), whilst maximizing reuse. Regarding the Prescriptions' Central System, consider separate components for the National Database of Prescriptions (BDNP) and the Prescription Registration Web Service. Indicate also external components (from external systems) with which the prescribing applications or the prescriptions' central system have to interact. Regarding the interfaces, you only have to name them (you do not need to describe their operations).

b) Add to the UML model a **deployment view**, and create therein a **deployment diagram** identifying the relevant hardware nodes, communication associations (with their respective multiplicities), software artifacts deployed on each node (representing the physical manifestation of software components), and dependencies between artifacts (see examples in the theoretical classes). Include external systems. Write a small description (in the "notes" field) for each node and artifact. You may use suggestive pictures for the nodes.

c) In the component view, create a separate component diagram to relate artifacts and components with the «**manifest**» dependency.

d) Indicate (with notes in the diagrams) the **architectural patterns** that are applicable to this system (see theoretical classes).

Note: This completes the instructions for the modeling project, to be submitted until November 16th.