EJERCICIOS MODELO PARA EXAMEN FINAL REGULAR - A

RICH INTERNET APPLICATIONS

The term RIA refers to a heterogeneous family of solutions, characterized by a common goal of adding new capabilities to the conventional hypertext-based Web. RIAs combine the Web´s lightweight distribution architecture with desktop applications' interface interactivity and computation power, and the resulting combination improves all the elements of a Web application (data, business logic, communication, and presentation).

The original Web kept data on a server, and the client explicitly downloaded information when needed. RIA technologies support client-side storage in a way that depends on the specific technology and device. For example, clients can locally store the shopping cart in an e-commerce application or an appointment calendar while users are manipulating this data. In the original Web, the server also performed business logic whereas RIA technologies enable moving part of the computation to the client. Offloading computation to the client allows quicker response and optimizes communication costs. For example, in a shopping cart solution, users can navigate, filter, and manipulate the data using complex operations before sending it to the server.

The original Web was a request-response machine: the server sent information only in response to a client request. While in RIA, both the client and server can initiate communication; program elements in a client stand ready to receive and execute asynchronous server commands. This bidirectionality eliminates many unnecessary server roundtrips which are typical of thin-client applications.

We can implement RIAs with several different technologies. Most implementation technologies are invoked through a browser and they might rely on the Web´s inherent facilities or supplement conventional browsers with scripts or plug-ins.

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Glossary: ***server roundtrips*: ciclos de ida y vuelta del servidor**
***thin-client*: cliente ligero. El cliente ligero depende obligatoriamente de un servidor.**

✹ **Lea el texto con atención y responda las siguientes preguntas en <u>español</u>.**

a. Explique qué entiende por la sigla RIA en español y qué se incluye bajo esta denominación.

b. ¿De qué manera las tecnologías RIA mejoran los elementos de una aplicación de la Web?

c. Explique la diferencia entre la forma de almacenamiento en estas tecnologías y en la Web tradicional.

d. ¿Qué se logra al transferir parte de las tareas de computación al cliente?

e. Explique el concepto de bidireccionalidad en estas tecnologías y su ventaja.

- **Traduzca el siguiente texto.**

Rich Internet Applications

The advent of Web 2.0 placed a major emphasis on the user experience. Although this was a critical need even for traditional Web applications, emerging Web 2.0 and cloud applications extended it even further. The two primary factors that impacted user experience on the Web with browser-based access were:

- page-based metaphor, in which the page on view is refreshed while a new page gets loaded; and
- the synchronous nature of communication between the client and server, in which the client user interface (UI) is blocked until it receives the server´s response, inhibiting user interactivity.