

Annotation System for Grading Assignments

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ABSTRACT

The rapid growth of World Wide Web has completely changed how educational courses are conducted at the universities. These days students can not only register for courses online, but can also access assignments, handouts and even their grades on the web. However, one aspect which has not changed with the advent of the web is the way assignments & exams are graded. The annotation system discussed in this paper provides a way to evaluate and give feedback to the students on their assignments & exams using the web.

Keywords

annotation system, browser tools, assignment grading

1. INTRODUCTION

Annotation system can be thought of as a browser tool which allows an user to associate some text (meta data) to a particular web page. Though such systems have been around for quite some time [3], [4], most of these systems are proprietary *i.e.*, they force the user to store the annotations on a predetermined server, furthermore these annotation systems are inextensible *i.e.*, the different fields making up the annotations cannot be changed or extended. The annotation system presented here overcomes all these shortcomings, in the later part of this paper we discuss how this system can be used for evaluating assignments & exams.

2. ANNOTATIONS SYSTEM

The characteristics of the system are as follows,

Open Architecture: The annotations are stored at user specified servers (local disk if specified), furthermore the user can restrict the access permissions on the annotations.

Privacy of the user: The web site which serves the page is kept unaware that a user has annotated their web page; or the fact that the user has a tool which can be used for annotating web pages.

Extensibility & Open Data formats: Both the site administrators and users can seamlessly extend the schema of the annotations. The annotation schema follows Resource Description Framework(RDF) format [1] and uses XPointer [2] for specifying a fragment on the web page.

Web Protocols: The system is built on top of HTTP, this improves the scalability of the system and it can take advantage of advanced HTTP features like caching, secure connections, content negotiation, *etc.*

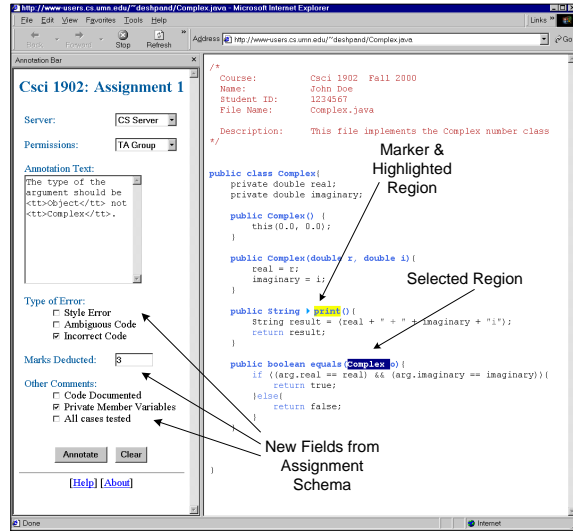


Figure 1: Screenshot of the annotation tool

3. EVALUATING ASSIGNMENTS

The annotation tool used for grading the assignments is shown in Figure 1. It consists of two panes, the right pane displays the assignment which has to be graded, whereas the left pane contains an HTML form for creating annotations. The form shown in the left pane is created dynamically from the RDF schema; the form elements displayed at the top are common to all annotations, while the form elements at the bottom are specific to every assignment. The teaching assistant grades the assignments (creates annotations) by selecting some text in right pane and filling out relevant fields from the left pane.

Detailed description of the system can be found at [5].

4. REFERENCES

- [1] D Brickley & R. V. Guha. RDF Schema Spec., <http://www.w3.org/RDF/>
- [2] S. DeRose & R. Daniel Jr. XML Pointer Language <http://www.w3.org/TR/1999/WD-xptr-19991206>
- [3] Neoplanet, <http://www.neoplanet.com/>
- [4] Third Voice, <http://www.thirdvoice.com/>
- [5] <http://www.cs.umn.edu/~deshpand/Annotation>.