Beta Presentation
clUML: Browser-Based UML Editor

The Capstone Experience
Team Michigan State University CSE

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Project Overview

• An easy to use web-based UML editor created for Michigan State University CSE
• To be integrated in CourseLib websites and used in future courses
• Includes a sanity check for common mistakes
• Supports both mouse and touchscreen devices
• One of many interactive programs MSU CSE has created to facilitate student learning
System Architecture
Overview
Properties of Classes
Sanity Checking

Sanity Check

(4) errors have been detected

- CS0402 Class cLass: Name not capitalized
- CS0110 Attribute attribute: Type missing
- CS0203 Operation operation(): Name's first character is not capitalized
- CS1100 Class cLass: Multiple attributes with the name attribute
Help Sections

[Image of a UML diagram showing a class hierarchy with `getParentClass` and `getChildClass` attributes.]

- **Adding New Attributes / Operations**: If you would like to add a new attribute to the class, right-click on the class (long touch on a touch screen) to bring up the class' context menu. Then, click on the first option, which says "Add". This will add a new default attribute to the class. You can also add a new attribute to the class by using the keyboard shortcut "Ctrl + A" while the class is selected. The class will automatically resize itself to add space for the new attribute. If you'd like to add a new operation to the class, add a new attribute to the class and edit the attribute so that it includes parentheses (()) before the colon (:), and the class will automatically detect and change the attribute to an operation.

- **Editing Existing Class Name / Attributes / Operations**: If you would like to edit an existing class name / attribute / operation, you can double-click on the component of the class that you'd like to change to put the component into editing mode. Once you are in editing mode, you can type in your changes and confirm them by either pressing the Enter key or by deseleting the component you are editing by clicking off of it.

- **Deleting Attributes / Operations**: If you would like to delete an attribute / operation, simply double-click on the attribute / operation you would like to delete to put it into editing mode, then delete the text from that attribute / operation so that you are left with an empty input. If you confirm changes with an empty input, the
What’s left to do?

• Stretch Goals
  ▪ Allow changing the order of attributes and operations
  ▪ Stereotypes and enumeration
  ▪ Text comments on diagrams
  ▪ Print only the contents of the canvas

• Other Tasks
  ▪ Add manual way to resize classes
  ▪ Finish unit testing for associations
Questions?