To: Matthias^2

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Subject: Formal spec for spreadsheet module

Dear team, the following is the spec for the spreadsheet module we desire.

This should be in Python 3.6.6 and work on CCIS Linux Machines.

`spreadsheet.`**`load_spreadsheet`**`(spreadsheet_array)`

> This method should take a dictionary keyed by tuples of 2 non-negative integers to a string value. Validate that each value is a valid formula, raise an InvalidFormulaException if a formula is invalid, otherwise save it internally. This should return a new Spreadsheet object if successful.

The Spreadsheet class has the following public methods. The Spreadsheet should be able to save formulas, which are strings of numbers, references to other cells in the format "[row, col]" (e.g. "[0,1]" refers to the cell at row 0 and column 1), and addition and multiplication of two numbers (multiplication takes precedence).

`get_value_at``(row, col)`

> This method should take 2 non-negative integers, and return the value evaluated at the given cell. 0 is the index of the first row, and 0 is the index of the first column. If the value at a given cell is blank, return None.

`set_formula_at``(row, col, formula)`

> This method should take 2 non-negative integers and set the cell at the given position with the given formula string. The given formula should be validated before being set and raise an InvalidFormulaException if invalid.