To: Matthias From: Manager

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Subject: Spread

We expect python 3.7 to be the language of this product.

In this 'spread' module packet, we will need one interface 'SpreadSheetOp' and three classes 'Formulas', 'Value', and 'Operation'.

'Value' is either a constant or reference to a valid position of another cell in the SpreadSheet.

Class 'Operation' contains 2 fields; op and formulas. op supports addition, multiplication or none.

'Formulas' contains two fields: value and operation. The operation field is linked to the operation field. This allows unlimited additions and multiplication in a formula.

The 'SpreadSheetOp' interface contains 3 methods: '__init__(self, formulas)', 'valueAt(position)', and 'replace(position, formula)'. There will be a class 'BasicSpreadSheet' implementing 'SpreadSheetOp' and the class has a field called 'arrangement formulas' that stores a 2d list of 'Formula's.

__init__(self, formulas) initialize a 'BasicSpreadSheet' object and receives rectangular arrangement of formulas user pass in and store it in 'arrangement formulas' field.

'valueAt(position)' receives a position user passes in and return the calculated outcome of the corresponding formula in 'formulas_arrangement'.

replace(position, formula) receives a formula and replaces it in the cell of given position.