

PROGRAMMING LANGUAGES

Dashboard ► My courses ► 1902-COL226 ► 21 February - 27 February ►
Assignment 4: Integrating the earlier assignments...

Assignment 4: Integrating the earlier assignments into a simple spreadsheet

In Assignment 4: you will implement the backend, type-check the operations, and integrate the entire work.

You will need to check that the operations on rows, columns and ranges (especially in type 2 operations) are of consistent dimensions (two ranges being added should be of the same size).

You need to write clear specifications of the OCaml functions which you implement, and document your code.

Backend

In order to evaluate the above functions, you might want to implement the following in OCaml:

- `full_count: sheet -> range -> index -> sheet` : Fills count of valid entries in the given range into the specified cell
- `row_count: sheet -> range -> index -> sheet` : Fills count of valid entries per row in the given range into the column starting from the specified cell
- `col_count: sheet -> range -> index -> sheet` : Fills count of valid entries per column in the given range into the row starting from the specified cell.


- `full_sum: sheet -> range -> index -> sheet` : Fills the sum of entries of cells in the given range into the specified cell
- `row_sum: sheet -> range -> index -> sheet` : Fills the sum of entries of cells per row in the given range into the column starting from the specified cell
- `col_sum: sheet -> range -> index -> sheet` : Fills the sum of entries of cells per column in the given range into the row starting from the specified cell

- `full_avg: sheet -> range -> index -> sheet` : Fills the average of entries of cells in the given range into the specified cell
- `row_avg: sheet -> range -> index -> sheet` : Fills the average of entries of cells per row in the given range into the column starting from the specified cell
- `col_avg: sheet -> range -> index -> sheet` : Fills the sum of entries of cells per column in the given range into the row starting from the specified cell

- `full_min: sheet -> range -> index -> sheet` : Fills the min of entries of cells in the given range into the specified cell

- row_min: sheet -> range -> index -> sheet : Fills the min of entries of cells per row in the given range into the column starting from the specified cell
- col_min: sheet -> range -> index -> sheet : Fills the min of entries of cells per column in the given range into the row starting from the specified cell
- full_max: sheet -> range -> index -> sheet : Fills the max of entries of cells in the given range into the specified cell
- row_max: sheet -> range -> index -> sheet : Fills the max of entries of cells per row in the given range into the column starting from the specified cell
- col_max: sheet -> range -> index -> sheet : Fills the max of entries of cells per column in the given range into the row starting from the specified cell
- add_const: sheet -> range -> float -> index -> sheet : adds a constant to the contents of each cell in the selected cell range
- subt_const: sheet -> range -> float -> index -> sheet : subtracts a constant from the contents of each cell in the selected cell range
- mult_const: sheet -> range -> float -> index -> sheet : multiplies the contents of each cell in the selected cell range by a constant.
- div_const: sheet -> range -> float -> index -> sheet : divides the contents of each cell in the selected cell range by a constant.
- add_range: sheet -> range -> range -> index -> sheet : adds the cell contents for each corresponding pair of cells in two selected cell ranges
- subt_range: sheet -> range -> range -> index -> sheet : performs a subtraction on the cell contents for each corresponding pair of cells in two selected cell ranges
- mult_range: sheet -> range -> range -> index -> sheet : multiplies the cell contents for each corresponding pair of cells in two selected cell ranges
- div_range: sheet -> range -> range -> index -> sheet : performs a division on the cell contents for each corresponding pair of cells in two selected cell ranges

Submission status

Submission status	Submitted for grading
Grading status	Not graded
Due date	Wednesday, 18 March 2020, 11:59 PM
Time remaining	Assignment was submitted 15 mins 57 secs early
Last modified	Wednesday, 18 March 2020, 11:43 PM
File submissions	 2018CS50098_Assignment4.zip
Submission comments	► Comments (0)

Feedback

Grade	18.00 / 100.00
Graded on	Sunday, 23 August 2020, 11:07 AM

◀ Assignment 3: Parser for Spreadsheet language

Jump to...

▼

Assignment 5: Signatures, Terms, substitutions, unifiers ▶

NAVIGATION



Dashboard

🏠 Site home

Site pages

My courses

1902-MTL102

1902-HUL243

1902-ELL205

1902-COP290

1902-COL226

Participants

▲ Competencies

📅 Grades

General

27 December - 2 January

3 January - 9 January

10 January - 16 January

17 January - 23 January

24 January - 30 January

31 January - 6 February

7 February - 13 February

14 February - 20 February

21 February - 27 February

📄 Assignment 2: Lexical Analysis for Spreadsheet Ass...

📄 Assignment 3: Parser for Spreadsheet language

📄 **Assignment 4: Integrating the earlier assignments...**

28 February - 5 March

6 March - 12 March

13 March - 19 March

20 March - 26 March

27 March - 2 April

3 April - 9 April

10 April - 16 April

17 April - 23 April
24 April - 30 April
1 May - 7 May
8 May - 14 May
15 May - 21 May
22 May - 28 May
29 May - 4 June
5 June - 11 June
12 June - 18 June
1902-COL216

You are logged in as Dipen Kumar (Log out)
1902-COL226
Get the mobile app