

# [CS-107]: Mini-projet 1 (fiche de correction)

Cours CS-107 <cs107@epfl.ch>

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À :Zammit Maxime <maxime.zammit@epfl.ch>;

Bonjour,

Voici la fiche de correction de votre premier mini-projet. Merci de la vérifier et d'y consulter les commentaires.  
Nous sommes à votre disposition pour toute question.

Meilleures salutations.  
L'équipe du cours CS107

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Date: 2019/11/13 14:12:25

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Task 1.1 DataEncoding: encodeString

- Encode a long message in all versions (1.0/1.0)
- Encode a long message in version 1 (0.5/0.5)
- Encode a message a maxSize of 0 (0.5/0.5)
- Encode a simple message in all versions (1.0/1.0)
- Encode a simple message in version 1 (0.5/0.5)
- Encode all kind of messages (3.0/3.0)
- Encode an empty String (0.5/0.5)

Points for tests: 7.0/7.0

Points deducted:  
Justification:

Points added:  
Justification:

Points for task: 7.0/7.0

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Task 1.2 DataEncoding: addInformations

- Add information for a simple array of version 1 (1.0/1.0)
- Add information for maximum array size of all versions (1.5/1.5)
- Add informations for all kind of data (accents, punctuations,...) (4.0/4.0)
- Add informations for data bigger than version 4 (0.5/0.5)
- Add informations for differents array size (1.5/1.5)
- Add informations for empty data array (0.5/0.5)

Points for tests: 9.0/9.0

Points deducted:  
Justification:

Points added:  
Justification:

Points for task: 9.0/9.0

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Task 1.3 DataEncoding: fillSequence

- Fill a simple input for all version (1.0/1.0)
- Fill a simple input for version 1 (1.0/1.0)
- Fill any possible input (3.0/3.0)
- Fill the smallest possible input (0.5/0.5)
- Input is already filled all versions (1.0/1.0)
- Input is already filled version 1 (0.5/0.5)

Points for tests: 7.0/7.0

Points deducted:

Justification:

Points added:

Justification:

Points for task: 7.0/7.0

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Task 1.4 DataEncoding: addErrorCorrection

- Add different level of error correction for the same data (1.0/1.0)
- Add error correction for all QRcode versions (4.0/4.0)
- Add error correction for no data (1.0/1.0)

Points for tests: 6.0/6.0

Points deducted:

Justification:

Points added:

Justification:

Points for task: 6.0/6.0

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Task 1.5 DataEncoding: bytesToBinaryArray

- Convert 2 bytes to binary (1.0/1.0)
- Convert any sequence of bytes to binary (3.0/3.0)
- Convert byte 0 to binary (0.5/0.5)
- Convert one byte to binary (1.0/1.0)
- Empty array as input (0.5/0.5)

Points for tests: 6.0/6.0

Points deducted:

Justification:

Points added:

Justification:

Points for task: 6.0/6.0

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Task 1.6 DataEncoding: byteEncoding

- Encode a message in all versions (3.0/3.0)
- Encode a message in version 1 (2.0/2.0)

Points for tests: 5.0/5.0

Points deducted:

Justification:

Points added:

Justification:

Points for task: 5.0/5.0

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Task 2.0 MatrixConstruction: Black and White constants

- Black is defined (0.0/1.0)
- Constant are final (0.0/0.5)
- Constants are statics (0.0/0.5)
- White is defined (0.0/1.0)

Points for tests: 0.0/3.0

Points deducted:

Justification:

Points added: 2.5

Justification:

Les tests ne fonctionnent que en présence de constantes publiques, la résolution de ce problème permet de faire passer tout les tests (malus : -0.5).

Points for task: 2.5/3.0

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Task 2.1 MatrixConstruction: initializeMatrix

- Initialize matrix of version 1 (1.0/1.0)
- Initialize matrix of versions 2-4 (3.0/3.0)

Points for tests: 4.0/4.0

Points deducted:

Justification:

Points added:

Justification:

Points for task: 4.0/4.0

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Task 2.2 MatrixConstruction: addFinderPatterns

- Add finder patterns for version 1 (2.0/2.0)
- Add finder patterns for versions 2-4 (4.0/4.0)

Points for tests: 6.0/6.0

Points deducted:

Justification:

Points added:

Justification:

Points for task: 6.0/6.0

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Task 2.3 MatrixConstruction: addAlignementPatterns

- Add alignment patterns for all versions (6.0/6.0)

Points for tests: 6.0/6.0

Points deducted:

Justification:

Points added:

Justification:

Points for task: 6.0/6.0

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Task 2.4 MatrixConstruction: addTimingPatterns

- Add timing pattern for version 1 (2.0/2.0)
- Add timing pattern for versions 2-4 (4.0/4.0)

Points for tests: 6.0/6.0

Points deducted:

Justification:

Points added:

Justification:

Points for task: 6.0/6.0

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Task 2.5 MatrixConstruction: addDarkModule

- Add dark module for version 1 (1.0/1.0)
- Add dark module for version 2-4 (2.0/2.0)

Points for tests: 3.0/3.0

Points deducted:

Justification:

Points added:

Justification:

Points for task: 3.0/3.0

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Task 2.6 MatrixConstruction: addFormatInformations

- Add format for version 0 and all masks (2.0/2.0)
- Add format for version 1 and mask 0 (1.0/1.0)
- Add format for versions 2-4 and all mask (3.0/3.0)
- Add format for versions 2-4 and mask 0 (1.0/1.0)

Points for tests: 7.0/7.0

Points deducted:

Justification:

Points added:

Justification:

Points for task: 7.0/7.0

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Task 2.7 MatrixConstruction: constructMatrix

- Construct matrix for version 1 all masks (0.5/0.5)
- Construct matrix for version 1 mask 0 (0.5/0.5)
- Construct matrix for versions 2-4 and all masks (3.0/3.0)
- Construct matrix for versions 2-4 and mask 0 (1.0/1.0)

Points for tests: 5.0/5.0

Points deducted:

Justification:

Points added:

Justification:

Points for task: 5.0/5.0

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Task 3.1 MatrixConstruction: maskColor

- Mask 0 (0.75/0.75)
- Mask 1 (0.75/0.75)
- Mask 2 (0.75/0.75)
- Mask 3 (0.75/0.75)
- Mask 4 (0.75/0.75)
- Mask 5 (0.75/0.75)
- Mask 6 (0.75/0.75)
- Mask 7 (0.75/0.75)
- Mask Invalid (0.5/0.5)

Points for tests: 6.5/6.5

Points deducted:

Justification:

Points added:

Justification:

Points for task: 6.5/6.5

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Task 3.2 MatrixConstruction: addDataInformations

- Add data for version 1 and all masks (2.0/2.0)
- Add data for version 1 mask 0 (1.0/1.0)
- Add data for version 2 and all masks (2.0/2.0)
- Add data for version 2 mask 0 (1.0/1.0)
- Add data for version 3 and all masks (2.0/2.0)
- Add data for version 3 mask 0 (1.0/1.0)
- Add data for version 4 and all masks (2.0/2.0)
- Add data for version 4 and mask 0 (1.0/1.0)
- Matrix with no data for all versions and all masks (1.0/1.0)
- Matrix with no data version 1 mask 0 (0.5/0.5)

Points for tests: 13.5/13.5

Points deducted:

Justification:

Points added:

Justification:

Points for task: 13.5/13.5

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Task Bonus: QR code Evaluation

- Evaluate a QR code (Bonus: 6.0/6.0)
- Find best mask (Bonus: 2.0/2.0)

Points for tests: 8.0/0.0

Points deducted:

Justification:

Points added:

Justification:

Points for task: 8.0/0.0

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General remarks:

Très bon travail! Le code est commenté, modulaire et respecte les conventions. Bravo.

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Points: 107.5/100.0

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