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| ***WEEK NUMBER*** | | 06 | | | |
| ***TOPIC(S)*** | | Trees (Binary Trees) | | | |
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| **--- PRECLASS ---** | | | | | |
| **SHORT VIDEO** | <https://goo.gl/zNAIQb> (General trees) | | | |  |
| <https://goo.gl/IEQfRx> (Binary trees) | | | |  |
| **BOOK** | GTG Chapter 8, Section 8.1 till p.308 (skip 8.1.3), Section 8.2, Section 8.3 till p.324 (skip 8.3.2,3), Section 8.4 till p.340 (skip 8.4.6 to end of chapter) | | | |  |
| **QUIZ** | <https://goo.gl/forms/qfRr9ZkeVyhtzqlk2> | | | |  |
| **TO-DO** | PyCharm: check the implementation of classes Tree and BinaryTree in module07 >>> preclass | | | |  |
| **--- PROBLEM SET 1 (Thursday October 6th) ---**  Implement the following functions (in module05 >>> part01):  **build\_UNIST\_tree()** returning a binary tree that contains (a simplified and fictitious version of) the organisational structure of schools and departments at UNIST.  **LCA(T,n1,n2)** return the lowest common ancestor of two positions in a tree n1 and n2. The LCA is the lowest position in T that has both n1 and n2 as descendants. | | | | | |
| **--- POST-CLASS 1 ---** | | | | | |
| **TO-DO** | Complete problem set 1 | | | |  |
| **--- PROBLEM SET 2 (Tuesday October 11th) ---**  Your task is to complete the implementation of the DecisionTree class. A DecisionTree “extends”” the LinkedBinaryTree by adding the following two methods:   * **create\_decision\_tree\_from\_file(self,file\_name)** that builds a decision tree using a file containing the questions to be asked. * **take\_decision\_from\_user\_input(self, answers)**: Given a decision tree this function allows the user to navigate through the decision tree to reach a final decision. | | | | | |
| **POST-CLASS 2** | | | | | |
| Complete problem set 2 | | |  |  |  |