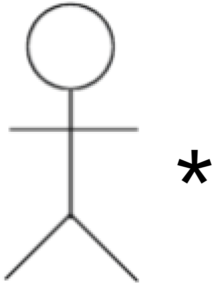
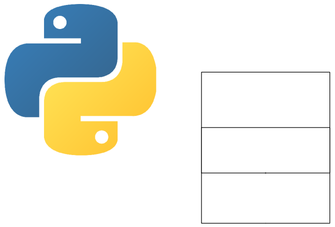
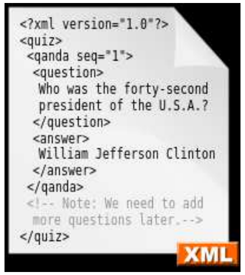
Computer Science Department, IUT (of University) of Bordeaux O. Guibert

Tutored Project







```
<?xml version="1.0"?>
<quiz>
 <qanda seq="1">
  <question>
   Who was the forty-second
   president of the U.S.A.?
  </question>
  <answer>
   William Jefferson Clinton
  </answer>
 </qanda>
 <!-- Note: We need to add
  more questions later.-->
</quiz>
```

Splendor board game

- 2014
  Nominated for the 2014 Spiel des Jahres (Game of the Year)
- Designer: Marc André
  Artist: Pascal Quidault
  Publisher: Space Cowboys, Asmodee
  Players: 2 to 4
  Age range: 10 and up
  Playing time: 30 minutes
  Skill(s) required: Resource management
- Rules:
  http://www.spacecowboys.fr/img/games/splendor/details/rules/Rules_Splendor_US.pdf
  https://www.youtube.com/watch?v=HlOxEk3_yuc
- General references:
  https://en.wikipedia.org/wiki/Splendor_(board_game)
  http://spacecowboys.fr/splendor/language:eng
  https://www.daysofwonder.com/online/en/splendor/
  https://boardgamegeek.com/boardgame/148228/splendor

Language: Python 3.*x*

- https://en.wikipedia.org/wiki/Python_(programming_language)
- Multiple programming paradigms: object-oriented, imperative and functional programming or procedural styles
- It features a dynamic type system and automatic memory management and has a large and comprehensive standard library
- Python Enhancement Proposals

  PEP 0008 -- Style Guide for Python Code

  > *Python coders from non-English speaking countries: please write your comments in English, unless you are 120% sure that the code will never be read by people who don't speak your language.*
- https://wiki.python.org/moin/TkInter
- https://wiki.python.org/moin/PythonXml; https://docs.python.org/3.4/library/xml.etree.elementtree.html

You not suppose
to use or to return:

- No integrated development environment: https://wiki.python.org/moin/IntegratedDevelopmentEnvironments
- Neither revision control software (GIT, SVN, etc.) nor continuous integration (Jenkins, etc.)
- No software development method (waterfall development, prototyping, incremental development, iterative and incremental development, spiral development, rapid application development, agile development, code and fix, lightweight methodologies, etc.)
- Neither UML diagram (class, use case, activity, sequence, communication, state machine, etc.) nor design pattern (factory, singleton, composite, state, strategy, model-view-controller)
- No project management
- Neither algorithms of AI nor code nor tests
- Neither report nor (design, code, etc.) documentation

You have to code:

- One human player can face 1 to 3 AI (artificial intelligence) Each AI has a level (basic or advanced)
- The human player can choose the first to play
- You have to read an XML file describing some elements of the game
- You have to code in Python OOP (Object Oriented Programming)
- You belong to a team of 6 to 8 students choosen by the teacher

Examination

Friday 16th September 2016 (morning):

- From 8:15 am...: the teacher presents the Tutored Project to the jury of teachers and all the students
- … till 10:05 am: from 10 till 25 minutes (including the presentation and a software demonstration from 5 till 10 minutes) to present your job to a jury; the jury can ask for some questions (up to 15 minutes)
  You have to listen to all the other teams!
- From 10:25 am till 12:15 am: each team presents a software demonstration from 10 till 25 minutes to the teacher

Schedule

- The teacher can help you for the rules of the game, object-oriented design, Python OOP and ET and TK, algorithmics … but won't code for you!
- From Tuesday 6th September 2016 to Thursday 15th September 2016 (8 days): 2 hours with the teacher and 6 hours independant work
- Teams:

ANGLADE ~ JUDE ~ LAXALDE ~ LE GUERN ~ PERNIN ~ SAMIER ~ WALTER ~ WYBRECHT

BARBE ~ BENARD ~ BONNAN ~ CASTERS ~ DEBIERNE—RUSAK ~ JACQUES ~ PIGNON ~ SOURIAU