

## 6. Practical Work: Activity Diagram; Python – Drawing shapes on a canvas

### 6.1. Modelling:

6.1.1. Develop an accordant **Activity Diagram** depicting non-trivial process corresponding the group's chosen topic & environment and related also with in previous practical work #3 described use case(s) and other diagrams developed so far.

6.1.2. Technical environment: use software tool chosen by the group itself.

5.1.3. Maximum points awarded: **7**

**TASK:** Using Visual Studio Code environment write Python program with latter mentioned requirements.

6.2.1. Use drawing shapes world and the accordant code introduced in our lecture material (i.e. 6.2. Part material). **[a]** Rewrite the Point class, but rather than storing the coordinate information as separate numbers, store the coordinates as a tuple. When you are done, use your Point class in place of the Point class available in our code so far and make sure the test program still works. **[b]** Implement additional Polygon convenience classes such as Triangle, Rectangle, and Octagon. The polygon convenience classes simply inherit from Polygon and set up the point list for the predefined shape.

Load all the necessary classes and run the shapes world simulation. In description document include runtime screenshots of above solutions.

6.2.2. Maximum points awarded: **8**

6.3. Format of solution to be submitted – use MS Word template (available in ViA Moodle) „\_pymod2021\_grupa00\_pd0\_dokuments\_sablons.docx” and accordingly rename, e.g.: „\_pymod2021\_grupa01\_pd6\_dokuments.docx” and save in .docx or .pdf format.

The file should containe **descriptions, screen-shots**; also **accordingly change title page, footer**, list of **content**, accordingly change part „**Document history**” and part „**Contacts and responsible person(s)**”. If there are no appendices, then delete this chapter. Add **Python code** .py file(s) in attachment of e-mail.

6.4. **Subject** field should contain: **PYMOD2021: pd6**

6.5. The practical work should be submitted in e-mail by 25.01.2022 23:59.