

Lab11. Graphics

Script Languages (INZ002025)

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1 Learning goals

After this lab you should be able to:

1. Export Word file
2. Prepare custom graphics
3. Save graphics to the file

2 Exercises

Artifacts to be uploaded to ePortal: - file: lab11.py

1. Download a text version of a book of your choice from [Project Gutenberg](#) web page. Use a link (at the ePortal) to an Excel sheet to synchronize efforts and to choose unique books.
 2. Extract book title, author's name and the first chapter of the book.
 3. Count the number of words in each of paragraphs of the first chapter. Round a number of words to the 10 (e.g. 123, 127, 129 all become 120). Sort the numbers from the shortest to the longest, and count number of paragraphs with the same number of words. Create a plot showing a distribution of lengths of paragraphs in the first chapter.
 4. Download a picture #1 (related to the book content) from Internet. Link to the picture can be hardcoded in your app, but a picture must be downloaded during application runtime.
 5. Crop and resize picture #1 using reasonable factors of your choice.
 6. Read a picture #2 (logo) from disk. It should be a black and white picture. Rotate it by the angle of your choice and paste it into a picture #1.
 7. Make a Word document including:
 - title page with:
 - title of the book,
 - picture #1,
 - author of the book,
 - author of the report (your name),
- Use different header styles with modified font types (e.g. bold, italic).

- chart page with:
 - plot of distribution of lengths of paragraphs,
 - description of the picture: explanation of the plot, including some data (e.g. number of paragraphs, number of words in the first chapter, minimal and maximal number of words in paragraph, average number of words in paragraph, source of the data, etc.).