Exploration and Presentation Assignment 2

Task 2

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Abstract

This is where an abstract will be in 4 sentences! What is the problem? Why is the problem interesting? What is the solution? What are the implications of the solution?

1. Introduction

Most of this document's review material is to be found in section 2. Otherwise see the unnumbered section right after section 2 and the bibliography.
Motivation — Why this topic is important nowadays.
Project objectives — what is the expected result.
Project tasks — what is to be done for achievement of the objectives -steps in the work, such as getting acquainted with the state-of-the-art and trends in the area, selecting a development methodology, creatinga design, selecting development tools and environments, programming,testing, implementation and evaluation, as appropriate.
Scope of the project — what is not an objective or a task.
Brief description of the other chapters that follow — one paragraph per each.

Tell reviewer what to look at so they don't waste time on all the sections irrelevant to the assignment.

Contents

List of Figures

List of Tables

2. Assignment Tasks

A demonstration of some international symbols working: æ ø å Æ Ø Å µ ü ö Ü Ö.
See the figure 2a on page 7 to see a picture of the Helix Nebula.

2.1. Assignment Subsection

2.1.1. Assignment Subsubsection

A ssignment paragraph beginning.

A ssignment subparagraph. Assignment paragraph ending.

2.2. Assignment Lists

List with bullet points:

- Item A.
- Item B.
- Item C.

List with alternate symbols:

– Item A.

– Item B.

– Item C.

Numbered List:

– Item A.

– Item B.

– Item C.

2.3. Assignment Tables

Here is a reference to the multi-column and multi-row table 1.

Table 1: Multi-column and multi-row table

Smaller note of table that describes what the table is all about.

Multi-col-row		X X
X X	X X	X

LEFT TEXT LEFT TEXT LEFT TEXT LEFT TEXT LEFT TEXT LEFT TEXT	MORE CENTER TEXT	RIGHT TEXT
LEFT TEXT	CENTER TEXT CENTER TEXT CENTER TEXT CENTER TEXT CENTER TEXT CENTER TEXT	I BELIEVE IN RIGHT TEXT
I BELIEVE IN LEFT TEXT	CENTER TEXT	RIGHT TEXT RIGHT TEXT RIGHT TEXT RIGHT TEXT RIGHT TEXT RIGHT TEXT

2.4. Assignment Code Listings

Listing 1: C# example

```
//Prints Hello World.
class Program
{
  public static void Main()
  {
    System.Console.WriteLine("Hello World!");
  }
}
```

2.5. Assignment Math equations

As an example of inline equations, here is once again the equation for the maximum page count for the report: $\boldsymbol{maxPageCount = 40 + 20 \cdot numberOfStudents}$. And text on the other side of the equation. If you should want it on another line, you can use the amsmath package like so:
Example for `gather`:

$$\vec{F} = \begin{pmatrix} 5 \cdot \cos(\frac{\pi}{5}) \\ 5 \cdot \sin(\frac{\pi}{5}) \end{pmatrix} = \begin{pmatrix} 4.04 \\ 2.93 \end{pmatrix} \tag{1}$$

$$\sqrt{F_x^2 + F_y^2} = \sqrt{4.04508497187^2 + 2.93892626146^2} = 4.99999999999 \tag{2}$$

Example for `align`:

$$\vec{F} = \begin{pmatrix} 5 \cdot \cos(\frac{\pi}{5}) \\ 5 \cdot \sin(\frac{\pi}{5}) \end{pmatrix} = \begin{pmatrix} 4.04 \\ 2.93 \end{pmatrix} \tag{3}$$

$$\sqrt{F_x^2 + F_y^2} = \sqrt{4.04508497187^2 + 2.93892626146^2} = 4.99999999999 \tag{4}$$

Let's say we want to print out the sum of n^2 for n between 1 and 10. To do this we would do the following:

$$\sum_{n=1}^{10} n^2 \tag{5}$$

And a product sequence:

$$\prod_{x=1}^{n} x^2 \tag{6}$$

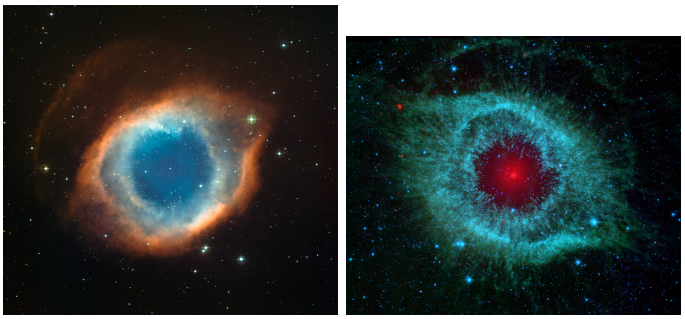
Unnumbered Assignment Section

This section isn't in the table of contents.

3. State of the art and trends

Survey of current technologies and similar solu-tions in this area – to show that you are well informed and step on the availableachievements: For example, you can present some relevant knowledge gath-ered from both previously studied modules and external sources, organized in astructured form. Here you can also describe and compare alternative

Figure 1: A picture of the Helix Nebula.



(a) A picture of the Helix Nebula.

(b) A picture of the Helix Nebula in infrared.

develop-ment methodologies, technologies, environments, frameworks, or programming2 languages that could have been used, and to explain and argue your choice.Inside the text, a citation or a reference to the used sources (books, articles,web pages) is required. The sources can be listed either underscore, or in anAppendix.

4. Requirements specification and solution design

Formulation of projectfoundation – a solid ground of your solution:This part reflects the design pro-cess, or the methodology you have followed. Analysis – who are the users, usecases and scenarios, intended user experiences. The analysis lead to specifi-cations – formal functional and non-functional requirement to the application.Specifications lead to requirements: you consider how to design the solution– system architecture, data models, visual interface, control, operability, algo-rithms, integration and other compo-nents, as appropriate. Use graphics forvisual presentation of your concepts as much as possible.

5. Solution development and implementation

Presentation of the applica-tion, test procedures, deployment and maintenance envi-ronments:This part presents the product in technical terms. Implementation and test environment — test strategies, test plan, test suites, demo and screen captures, usability evaluation, etc. Units of code, packages, deployment, supported interfaces, al-gorithms, input and output, supported file formats, frameworks, servers andclients, etc.

6. Conclusions

Brief summary:What has been done and the benefits of it. Recommendation for future extensions and upgrades. Reflection on the workand the product.

7. Rules and recommendations to Remember

In the recommendations and requirements pdf the following rules, recommendations and explanations are laid out:

- Strive to **include elements from courses passed**.
- Group size is **maximum 4 students**. Larger groups carry larger expectations.
- The 15 ECTS points the project covers should amount to **412.5 hours** of project work.

7.1. Report

As before, the Report requirements are found in the recommendations and requirements pdf.

1. The maximum page count for the report is:
   $maxPageCount = 40 + 20 \cdot numberOfStudents$.
   Meaning that a single student can write up to 60 pages and two students can write 80, etc.
2. The report can be written in either **Danish or English**.
3. The report **must** contain a thorough description of the work that has been done during the bachelor project, as well as an evaluation and reflectionon the work.

7.2. Final works

Project and documentation completed. Visual (power point) presentation and a demo prepared. It is recommended to discuss the draft of the report with the supervisor before the final!

7.3. Other Handy Things

This section is just for handy things to remember for later that are not required by the assignment. See Table 2.

Table 2: The effects of treatments X and Y on the four groups studied.

Groups	Treatment X	Treatment Y
1	0.2	0.8
2	0.17	0.7
3	0.24	0.75
4	0.68	0.3

Appendices

A. Appendix A

B. Appendix B

References

[1] Author A, Author B and Author C. *The First Book Name*. Publisher 1, Reading, City Name, Year.

[2] Kent Beck. *How to get a paper accepted at oopsla, 1993*

[3] Copenhagen Business Academy.
Studieordning for professionsbacheloruddannelsen i soft-wareudvikling. (Danish) [*Curriculum forthe Bachelor's Degree Programme in Software Development, aug 2017*].
`https://datsoftlyngby.github.io/soft2020fall/resources/bbe51cf2-bachelorProject.pdf`