# Assignment 2 UFO
# LaTeX
# Task 2 - Bachelor Template

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*(✓ Title page without page number)*

# Contents

# 1 Danish characters: æ, ø, å

Test case: Rød grød med fløde
Test case 2: RØD GRØD MED FLØDE
  *(✓ Danish characters)*

# 2 Graphics

## 2.1 Caption over image

Figure 1: *(✓ Caption above)*



## 2.2 Caption under image



Figure 2: *(✓ Caption under)*

## 2.3   With label



Figure 3: *(✓ With label)* (labelcat)
Here [3] is a direct reference to the above cat, aptly named *labelcat*.

## 2.4   Centered



Figure 4: *(✓ Centered image)* (wide cat)

## 2.5 Two images next to each other



Figure 5: Cat one



Figure 6: Cat two

*(✓ Two images next to each other)*

# 3 Reference to image

Here is a reference to the centered cat: 4
*(✓ Image reference)*

# 4 Reference to page containing the image

Here is a page reference to the centered cat: 2
*(see figure 4 on page 2)*
*(✓ Image page reference)*

# 5 Section, subsection, subsubsection, paragraph, subparagraph

Section text
*(✓ Section)*

## 5.1 Subsection

Subsection text
*(✓ Subsection)*

### 5.1.1 Subsubsection

Subsubsection text
*(✓ Subsubsection)*

**Paragraph** Paragraph text
*(✓ Paragraph)*

**Subparagraph** Subparagraph text
*(✓ Subparagraph)*

## 5.2 Numbered section

Numbered section text
*(✓ Numbered section)*

## Non-numbered section

Non-numbered section text
*(✓ Non-numbered section)*

# 6 Lists

## 6.1 Bullet points

- Bullet point one

- Bullet point two

- Bullet point three

*(✓ Bullet points)*

## 6.2 Alternative bullet symbols

- Default bullet point

- Black square for second entry

- Square for third entry

- Dash for fourth entry

*(✓ Alternative bullet symbols)*

## 6.3 Enumerated lists

1. Enumerated entry one

2. Enumerated entry two

3. Enumerated entry three

*(✓ Enumerated lists)*

### 6.3.1 Alternatively numbered lists

  I (modified) Enumerated entry one

 II (modified) Enumerated entry two

III (modified) Enumerated entry three

*(✓ Alternatively numbered lists)*

# 7 Table

## 7.1 Various horizontal alignments in columns (l, r, c)

| Left | Right | Center |
|------|-------|--------|
| 1 | 1110.1 | a |
| 2 | 10.1 | b |
| 3 | 23.113231 | c |

*(✓ Various horizontal alignments)*

## 7.2 Cell spanning multiple columns

| Left | Right | Center |
|------|-------|--------|
| multicolumn | | a |
| 2 | 10.1 | b |
| 3 | 23.113231 | c |
| 4 | 25.113231 | d |

*(✓ Cell spanning multiple columns)*

## 7.3 Vertical alignment in multi-line cells

No solution

## 7.4 Table description and label

Table 1: Multirow and -column table.

| Value 1 | Value 2 | Value 3 |
|---------|---------|---------|
| $\alpha$ | $\beta$ | $\gamma$ |
| 1234 | | a |
| | | b |
| 3 | 23.113231 | c |
| 4 | 25.113231 | d |

## 7.5 Reference to table

See table 1 on page 6.

# 8 Code

## 8.1 Syntax highlighting

```
1    <!DOCTYPE html>
2    <html>
3        <head>
4            <title>Hello</title>
5        </head>
6        <body>Hello World</body>
7    </html>
```

# 9 Math equations

## 9.1 Inline equations

The well known Pythagorean theorem $x^2 + y^2 = z^2$ was proved to be invalid for other exponents. Meaning the next equation has no integer solutions:

## 9.2 Equation (seperate line)

Text before
$$x^n + y^n = z^n$$

Text after
<span style="color:green">*(✓ Equation on seperate line)*</span>

## 9.3 Fractions, summations, products, roots, powers

**Fractions** can be used alongside the text, for example $\frac{1}{2}$, and in a mathematical display style like the one below:

$$\frac{1}{2}$$

<span style="color:green">*(✓ Fractions)*</span>

**Summations** can be used alongside the text, for example $\sum_{n=1}^{\infty} 2^{-n} = 1$ inside text, and in a mathematical display style like the one below:

$$\sum_{n=1}^{\infty} 2^{-n} = 1$$

<span style="color:green">*(✓ Summations)*</span>

**Products** can be used alongside the text, for example $\prod_{i=a}^{b} f(i)$ inside text, and in a mathematical display style like the one below:

$$\prod_{i=a}^{b} f(i)$$

<span style="color:green">*(✓ Products)*</span>

**Roots** can be used alongside the text, for example $\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ inside text, and in a mathematical display style like the one below:

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

<span style="color:green">*(✓ Roots)*</span>

**Exponents** can be used alongside the text, for example $2^2$ inside text, and in a mathematical display style like the one below:

$$2^2$$

<span style="color:green">*(✓ Exponents)*</span>

# 10 Bibliography with book, article and internet link

Book: [1]
<span style="color:green">*(✓ Book citation)*</span>

Article: [2]
*(✓ Article citation)*
Internet: [3]
*(✓ Internet citation)*

# References

[1] George D. Greenwade. *The Comprehensive Tex Archive Network (CTAN)*. yeet, 1993.

[2] Rabbert Klein. Black holes and their relation to hiding eggs. *Theoretical Easter Physics*, 2010. (to appear).

[3] test. Bibtex documentation. `https://en.wikibooks.org/wiki/LaTeX/Bibliography_Management#BibTeX`. Accessed: 2021-03-10.

# 11 Todo notes of own choice

☑ Title page without page number

☑ Table of contents

☑ Danish characters

☑ Image

☑ Caption over image

☑ Caption under image

☑ Image Label

☑ Centering

☑ Two images next to each other

☑ Reference to image

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☑ Section, subsection, subsubsection, paragraph, subparagraph

☑ Numbered section

☑ Non-numbered section

☑ Bullet point List

☑ Alternative bullet symbols List

☑ Enumerated Lists

☑ Alternatively numbered lists (roman numerals, letters)

☑ Table with multiple columns

☑ Various horizontal alignments in columns (left, right, centered)

☑ Cell spanning multiple columns

☒ Vertical alignment in multi-line cells

☑ Table description and label

☑ Reference to table

☑ Code listing

☑ Code with emphasized key words in your favorite programming language

☑ Math equations

☑ Inline equations (in text)

- ☑ Display equations (on separate line)
- ☑ Fractions, summations, products, roots, powers
- ☑ Bibliography with book, article and internet link
- ☑ Todo notes of own choice