LaTeX Bachelor Template

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Forfatter

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Anslag - XXXXXXX

1 Todo liste

Gøremålsliste

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- [ ] Danish characters, æ ø å . . . ii
- [ ] Image . . . ii
- [ ] Caption over image . . . ii
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- [ ] Two images next to each other . . . ii
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- [ ] Section, subsection, subsubsection, paragraph, subparagraph . . . ii
- [ ] Numbered section . . . ii
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- [ ] Bullet point List . . . ii
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- [ ] Alternatively numbered lists (roman numerals, letters) . . . ii
- [ ] Table with multiple columns . . . ii
- [ ] Various horizontal alignments in columns (left, right, centered) . . . ii
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- [ ] Table description and label . . . ii
- [ ] Reference to table . . . ii
- [ ] Code listing . . . ii
- [ ] Code with emphasized key words in your favorite programming language . . . ii
- [ ] Math equations . . . ii
- [ ] Inline equations (in text) . . . ii
- [ ] Display equations (on separate line) . . . ii
- [ ] Fractions, summations, products, roots, powers . . . ii
- [ ] Bibliography with book, article and internet link . . . iii
- [ ] Todo *notes* of **own** choice . . . iii
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- [ ] This is the end of the assignment!

Indhold

2 Introduktion æ ø å Æ Ø Å

Fusce mauris. Vestibulum luctus nibh at lectus. Sed bibendum, nulla a faucibus semper, leo velit ultricies tellus, ac venenatis arcu wisi vel nisl. Vestibulum diam. Aliquam pellentesque, augue quis sagittis posuere, turpis lacus congue quam, in hendrerit risus eros eget felis. Maecenas eget erat in sapien mattis porttitor. Vestibulum porttitor. Nulla facilisi. Sed a turpis eu lacus commodo facilisis. Morbi fringilla, wisi in dignissim interdum, justo lectus sagittis dui, et vehicula libero dui cursus dui. Mauris tempor ligula sed lacus. Duis cursus enim ut augue. Cras ac magna. Cras nulla. Nulla egestas. Curabitur a leo. Quisque egestas wisi eget nunc. Nam feugiat lacus vel est. Curabitur consectetuer. [1].

2.1 Billede og caption

Suspendisse vitae elit. Aliquam arcu neque, ornare in, ullamcorper quis, commodo eu, libero. Fusce sagittis erat at erat tristique mollis. Maecenas sapien libero, molestie et, lobortis in, sodales eget, dui. Morbi ultrices rutrum lorem. Nam elementum ullamcorper leo. Morbi dui. Aliquam sagittis. Nunc placerat. Pellentesque tristique sodales est. Maecenas imperdiet lacinia velit. Cras non urna. Morbi eros pede, suscipit ac, varius vel, egestas non, eros. Praesent malesuada, diam id pretium elementum, eros sem dictum tortor, vel consectetuer odio sem sed wisi.

Flot illustration med tekst foroven

Figur 1: Og tekst forneden. Ingen grund til panik. [2]

2.2 Flere billeder og henvisninger!

(a) Study hard

(b) Get very lost

Figur 2: En figur med to billeder!

Se i figur 2 på side 2 (lige oven for) for en grundig illustration af hvordan arbejdet med at forstå LaTeX er.

2.2.1 Subsubsections, paragraphs, subparagraphs

Paragraf Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

Subparagraf Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

3 Lister og Tables

3.1 Lister i mange former

Så skal der testes lister. Først en unordered list med bullet-points

- CMDR Rigmor køber snart en Krait Phantom
- Herefter sættes der kurs mod Sagittarius A*

Så skal der testes ordered lists:

1. Der skal findes et navn til det nye Starship.
2. Måske en navn fra et andet spil?

Testing af alternative "bullets".

- Default item label for entry one
- Default item label for entry two
- Custom item label for entry three

Så skal der testes lister i lister. Her er en god blanding af listesymbol, samt unordered underlister osv. Great fun with lists!:

1. Køb en Krait Phantom
2. Outfit for max jump-range. Husk engineering og guardian tech.
    I. Husk enginnering og guardian tech.
    II. Find et navn, gerne fra et andet spil.
        i. Plot en rute.
        ii. Tjek for POI på vejen.
            - Dobbelttjek at alt er i orden!
            - Tag afsted mod Sagittarius A*.

3.2 Tables i mange former

Paragraf med Tables er simpelthen bare bedste form for paragraffer! Not loving kæmpehullet efter paragraftitlen dog. Anyway, nu kommer der tables!

Planets we love!		
Mercury	Venus	Earth
Mars	Jupiter	Saturn
Uranus	Neptune	Pluto (I am planet!)

Subaragraph Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

Tabel 2 viser en oversigt over alle planeterne (og én falsk) i vores solsystem. Dog ikke på en specielt hensigtsmæssig måde, da inddelingen med de arbitrære tre kolonner er underlig.

Tabel 1: **Multirow table med left, right, center alignment**

Steder der skal besøges		
Systemnavn	Main POI	Kommentar
Eorl Auwsy SY-Z d13-3468	ABC 1 H ABC 3 C ABC 3 C	Tre Guardian ruin sites
Stuemeae FG-Y d7561	Stuemeae FG-Y d7561 Explorer's Anchorage	Earth-like world Deep Space Outpost

Tabel 2: Interessante systemer. [3]

4 Code listings

4.1 Made up Java code

```
1  package starshipfunctionality;
2
3  public class Starship implements DrawListener {
4
5      private Draw draw = new Draw();
6      private double rx, ry;          // position
7      private double vx, vy;          // velocity
8      private double direction;       // orientation of
       ship
9
10     public Starship() {
11         draw.addListener(this);
12         show();
13         draw.setPenColor(Color.WHITE);
14         draw.text("Press 'w', 'a', 's' or 'd' to move")
       ;
15         draw.show(1000);
16     }
17
18     public void launch() {
19         rx = ry = 0.5;
20         vx = vy = 0.0;
21         direction = 0.0;
22
23         while (true) {
24             rx = rx + vx;
25             ry = ry + vy;
26             show();
27             draw.show(50);
28         }
29     }
30 }
```

Listing 1: Java example

5 Math is hard!

5.1 Masser af matematikeksempler fra nettet

Greek letters	$\alpha A \beta B \gamma \Gamma \rho P \sigma \Sigma \delta \Delta \epsilon E$
Binary operators	$\times \otimes \oplus \cup \cap$
Relation operators	$< > \subset \supset \subseteq \supseteq$

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:

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

When displaying fractions in-line, for example $\frac{3x}{2}$ you can set a different display style: $\dfrac{3x}{2}$.

This is also true the other way around

$$f(x) = \frac{P(x)}{Q(x)} \quad \text{and} \quad f(x) = \tfrac{P(x)}{Q(x)}$$

Testing notation for limits

$$\lim_{h \to 0} \frac{f(x+h) - f(x)}{h}.$$

This operator changes when used alongside text $\lim_{h \to 0}(x - h)$.

User-defined operator for arctangent:

$$\operatorname{arctg} \frac{\pi}{3} = \sqrt{3}.$$

$$\int_0^1 x^2 + y^2 \, dx$$

$$\sum_{i=1}^{\infty} \frac{1}{n^s} = \prod_p \frac{1}{1 - p^{-s}}$$

Unummereret Section

Kommer heller ikke med i indholdsfortegnelsen!

Figurer

Tabeller

Litteratur

[1] A. Einstein, "Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]," *Annalen der Physik*, vol. 322, no. 10, pp. 891–921, 1905.

[2] L. F. Menabrea and A. Lovelace, "Sketch of the analytical engine invented by charles babbage," 1842.

[3] "Elite Dangerous Star Map, Galactic Mapping." `https://www.edsm.net/en/galactic-mapping`. Accessed: 2021-02-24.

6 Appendix A