

Webbteknik 3

Informationsstrukturering med JSON

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Objekt i JavaScript

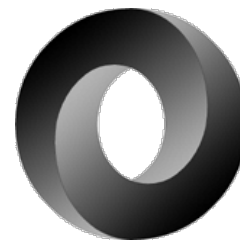
```
course = {  
  code: "1ME323",  
  title: "Webbteknik 3",  
  credits: 7.5  
};
```

Objekt i XML

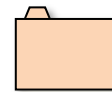
```
<course>  
  <code>1ME323</code>  
  <title>Webbteknik 3</title>  
  <credits>7.5</credits>  
</course>
```

Objekt i JSON

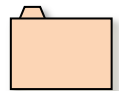
```
course = {  
  "code": "1ME323",  
  "title": "Webbteknik 3",  
  "credits": 7.5  
}
```



JavaScript Object Notation



F5-ex1a



F5-ex1b

JavaScript

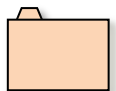
```
a = [x, y, z];
```

```
a = [{...}, {...}, {...}];
```

```
list = [  
  {  
    code: "1ME323"  
    title: "Webbteknik 3",  
    credits: 7.5  
  },  
  {  
    code: "1ME311",  
    title: "Digitala medier",  
    credits: 7.5  
  },  
  {  
    code: "1ME331",  
    title: "Interaktionsdesign 1",  
    credits: 7.5  
  }  
];
```

JSON

```
{  
  "list": [  
    {  
      "code": "1ME323"  
      "title": "Webbteknik 3",  
      "credits": 7.5  
    },  
    {  
      "code": "1ME311",  
      "title": "Digitala medier",  
      "credits": 7.5  
    },  
    {  
      "code": "1ME331",  
      "title": "Interaktionsdesign 1",  
      "credits": 7.5  
    }  
  ]  
}
```



F5-ex1c

Från F2-ex3a

XML

```

<vacation_objects>
  <accommodation type="apartment">
    <description>...</description>
    <address>
      <town>Grøneby</town>
      <country>Danmark</country>
    </address>
    <price currency="DKK">6200</price>
  </accommodation>
  <accommodation type="apartment">
    <description>...</description>
    <address>
      <town>Lilleby</town>
      <country>Danmark</country>
    </address>
    <price currency="DKK">3100</price>
  </accommodation>
</vacation_objects>

```

Både element och attribut
blir egenskaper.

JSON

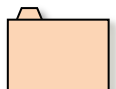
```

{
  "accommodation": [
    {
      "type": "apartment",
      "description": "...",
      "address": {
        "town": "Grøneby",
        "country": "Danmark"
      },
      "price": {
        "value": 6200,
        "currency": "DKK"
      }
    },
    {
      "type": "apartment",
      "description": "...",
      "address": {
        "town": "Lilleby",
        "country": "Danmark"
      },
      "price": {
        "value": 3100,
        "currency": "DKK"
      }
    }
  ]
}

```

Efter inläsning med AJAX:
Konvertera text till objekt

`object = JSON.parse(text);`



F5-ex2

Vilket är bäst?

Ska man använda JSON eller XML?

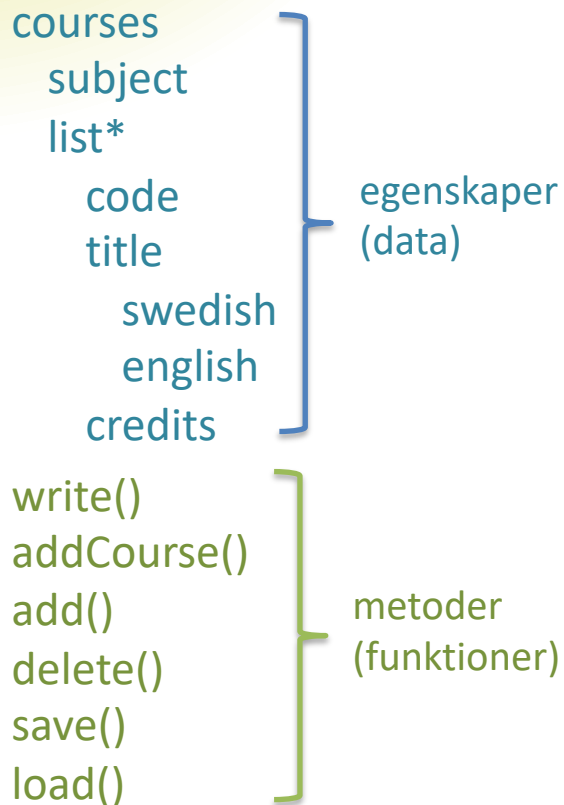
Både likhet och skillnader

Sök på "JSON vs. XML"

- Argument med både för- och nackdelar med båda.

Objekten Course och CourseList från föreläsning F4, exempel F4-ex5, slås ihop, så att all data kan samlas i ett objekt, som kan sparas som JSON.

Struktur:



Konvertera till textsträng

```
text = JSON.stringify(courses);
```

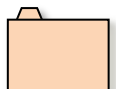


Konvertera text till JSON-objekt

```
courses = JSON.parse(text);
```

JSON

```
{
  "subject": "Medieteknik",
  "list": [
    {
      "code": "1ME323",
      "title": "Webbteknik 3",
      "credits": 7.5
    },
    {
      "code": "1ME311",
      "title": "Digitala medier",
      "credits": 7.5
    },
    {
      "code": "1ME331",
      "title": "Interaktionsdesign 1",
      "credits": 7.5
    }
  ]
}
```



F5-ex3

"Överkurs"

Spara fil

Skapa ett Blob-objekt och använd ett a-element för download.

Blob

<https://www.javascripture.com/Blob>

a-element med attributet download

https://www.w3schools.com/tags/att_a_download.asp

Läsa in fil

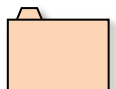
Skapa ett FileReader-objekt.

FileReader

<https://www.javascripture.com/FileReader>

Kod baserad på exempel på "This Could Be Better"

<https://thiscouldbebetter.wordpress.com/2012/12/18/loading-editing-and-saving-a-text-file-in-html5-using-javascript/>



F5-ex4