

Exercise 3

1. Binary to integer

Calculate the value of the binary number

```
0 0000000 01010010
0 0000010 10000011
```

2. Integers to binary

Calculate the value (decimal system) of the decimal numbers

```
316
1035
```

3. Number Types

The input on the left produces the following output:

```
int a = 62352;
int b = 1142342;
int c = a * b;
double d = 1.0 * a * b;
print(a);
print(b);
print(c);
print(d);
double e = 1 - 0.9 - 0.1;
print(e);
```

```
a = 62352
b = 1142342

c = -1787135648
d = 7.1227308384 E10
e = 2.2351741790771484 E-8
```

Explain the output.

4. JSON vs. XML

Given the following information:

Team Meeting: date: 2021.12.20, time: 09:15, location: Room 214, participants: Rolf, Kurt, Vera

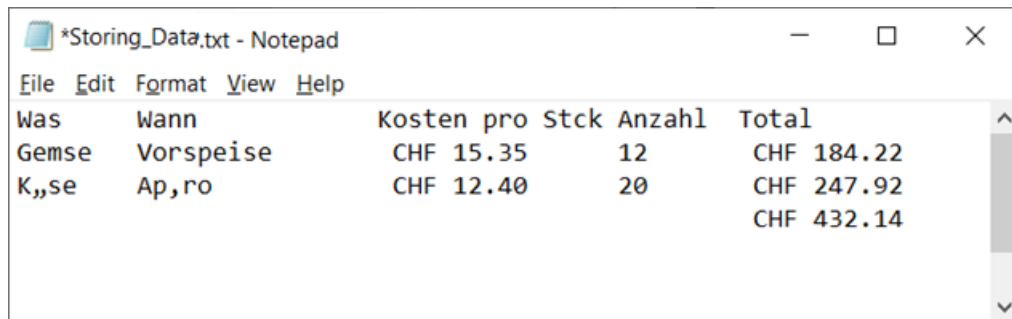
Write this information first as a JSON document, then as an XML document.

5. Data Chaos

A colleague recently sent me a file with the offer for the company event. Unfortunately, he didn't tell me what format the file has. When I opened it, it looked like this:

```
NUlNUlNUlNUl-“ÉNÄ0DLEE÷HüCä-JÜ²@BS5eÁc
HÄBETICAN(ÖXðKŽ) `IÄ@...PiUp>D%i{iÜLfr*ð@z+@E6†VE>`
èhlpääðâ*#4DC4NAK'
F¹CAN NAK+@q==m4-DC2`Å$ETX¶¢'JWR¢iÁ+lb,À+]ì^DC1?æ™LJIÖFFäùht!u
FFEOTjSUB4ÄtrVTZ8`i-úúÉÉ>
¢°ùú7 Z;RrV+bÉð=?:vÖ`¢^x-n0ePACK{NUlò@IÜ21?ETXDC1ETB†Bndfp,USð»
`+toSYNcøÛ,,g\ú?,,SIßýSOHX?m²-†·Í@ACKµÿ“øf=ð'iÖ@óx2=(ÿÉ¥”US1iBbø7
ÛEð³AÛxeÄO-[øe3ÊrESCUSÛÈP_DC1Báf,/A-éáSYNŠiSO
ÒÊSOHRS;ø"°<Ü«FFæ™,ãgG7ð[†{SI-æ³é¹EŽFSÄzwESCÿÇÀŠŽ
yòdøBÄïo=æ@DC3VTA&VTèUS{S³~%<;SO@CAN†9hÄl`È2wSYNUlNUlNUlÿÿETX
NUlPKETXFEOTDC4NUlACKNUlBSNUlNUl!NUlàu%SACKSOHNUlNUlÛSTX
NUlNUlVTNUlBSSTX_rels/.rels
¢EonSsx / NUlSsxNUlNUlNUlNUlNUlNUlNUlNUlNUlNUlNUlNUlNUlNUlNUlNUl
```

When I asked, he provided me with a new document, this time a text file:



Obviously I had caught the wrong editor, so I opened it in another:



How can this problem be solved?