Template Week 2 – Logic
Student number: 589531
Assignment 2.1: Parking lot
Which gates do you need?
And gate
Complete this table
Assignment 2.2: Android or iPhone
Which gates do you need?
Een XOR gate
Complete this table
Assignment 2.3: Four NAND gates
Complete this table
How can the design be simplified?
Door een XOR poort te gebruiken zie mijn demonstatie.
A = 0, B = 0, C = 0
A = 0, B = 1, C=1
A = 1, B = 0, C = 1
A = 1, B = 1, C = 0
Assignment 2.4: Getting to know Logisim evolution
Screenshot of the design with your name and student number in it:
Assignment 2.5: SR Latch
Screenshot SR Latch in Logisim with your name and student number:
Assignment 2.6: Vending Machine
Screenshot Vending Machine in Logisim with your name and student number:
Assignment 2.7: Bitwise operators
Complete the java source code for bitwise operators. Put the source code here.
Assignment 2.8: Java Application Bit Calculations
Create a java program that accepts user input and presents a menu with options.
Is number odd?
Is number a power of 2?
Two’s complement of number?
Implement the methods by using the bitwise operators you have just learned.
Organize your source code in a readable manner with the use of control flow and methods.
Keep this application because you need to expand it in week 6 for calculating network segments.
Paste source code here, with a screenshot of a working application.

```
import nl.saxion.app.SaxionApp; public class Application { public static void main(String[] args) { SaxionApp.start(Application::runApp, 800, 600); } private static void runApp() { boolean doorgaan = true; while (doorgaan) { SaxionApp.printLine("1. Is het getal oneven?"); SaxionApp.printLine("2. Is het getal een macht van 2?"); SaxionApp.printLine("3. Two's complement van een getal"); SaxionApp.printLine("0. Stop"); int keuze = SaxionApp.readInt("Kies een optie: "); if (keuze == 1) { int getal = SaxionApp.readInt("Geef een getal: "); if ((getal & 1) == 1) SaxionApp.printLine(getal + " is oneven."); else SaxionApp.printLine(getal + " is even."); } else if (keuze == 2) { int getal = SaxionApp.readInt("Geef een getal: "); if (getal > 0 && (getal & (getal - 1)) == 0) SaxionApp.printLine(getal + " is een macht van 2."); else SaxionApp.printLine(getal + " is geen macht van 2."); } else if (keuze == 3) { int getal = SaxionApp.readInt("Geef een getal: "); SaxionApp.printLine("Two's complement: " + ((~getal) + 1)); } else if (keuze == 0) { doorgaan = false; } else { SaxionApp.printLine("Ongeldige keuze."); } } } }
```

Ready? Then save this file and export it as a pdf file with the name: week2.pdf