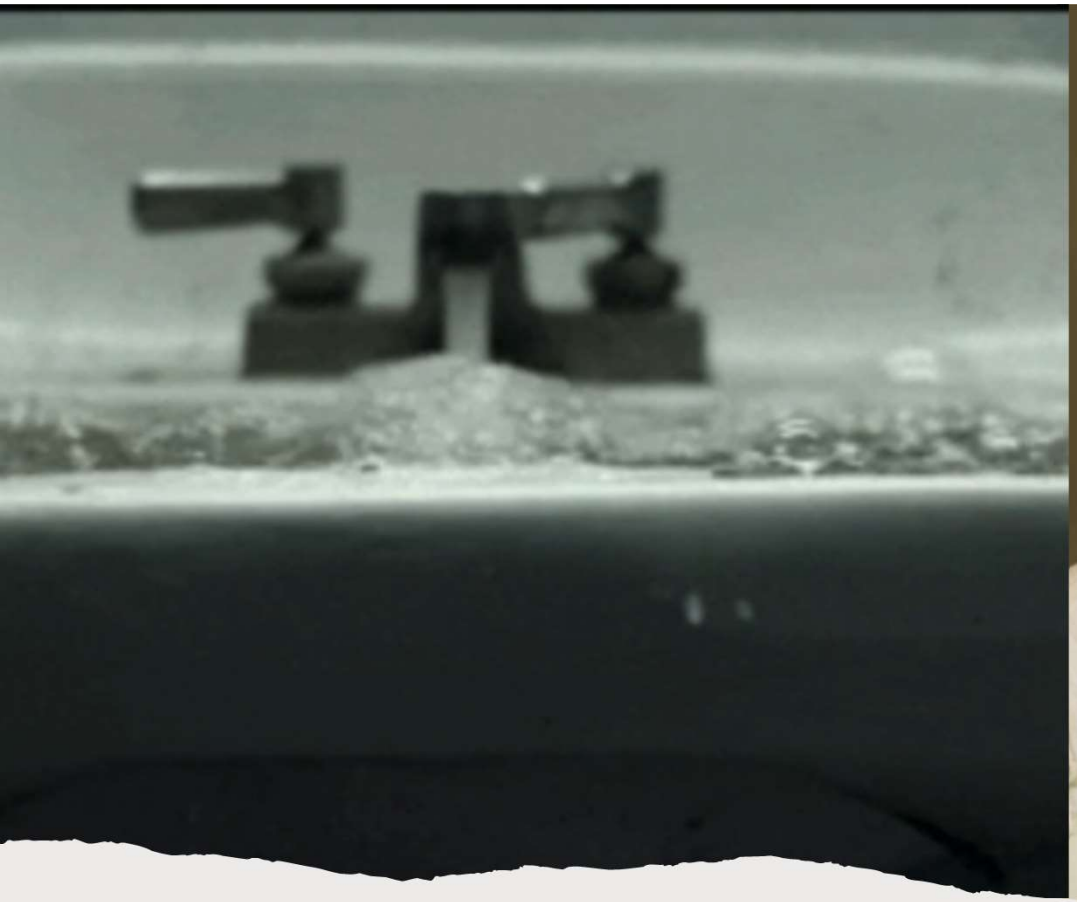
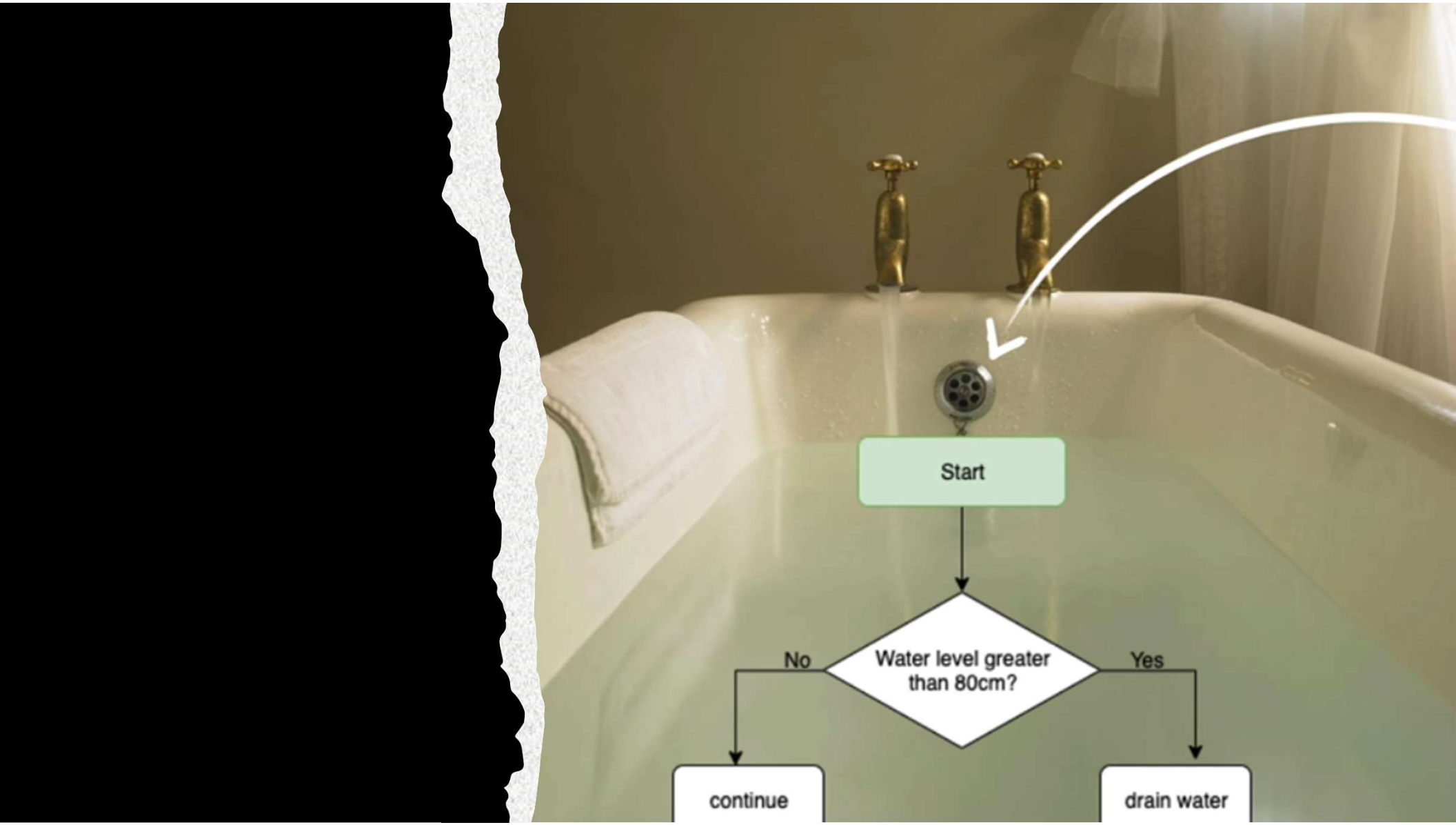


Why doesn’t the bath tub overflow?


Start
Water level greater than 80cm?
No
Yes
continue
drain water

```
if condition:
    do this
else:
    do this
```

Control Statements

- **Conditional Statements:**
  - Execute a block of code based on the outcome of a certain condition

if/else example

```
water_level = 50
if water_level > 80:
    print("Drain water")
else:
    print("Continue")
```

Relational Operators

- Used for comparison
  - > (Greater than)
  - < (Less than)
  - >= (Greater than or equal to)
  - <= (Less than or equal to)
  - != (Not Equal to)
  - == (Equal to)

Interactive coding task

- Write a code that, if the height of a person is 120cm or greater than 120 cm they can ride the roller coaster, otherwise suggest them to grow taller then they can ride

Interactive coding task

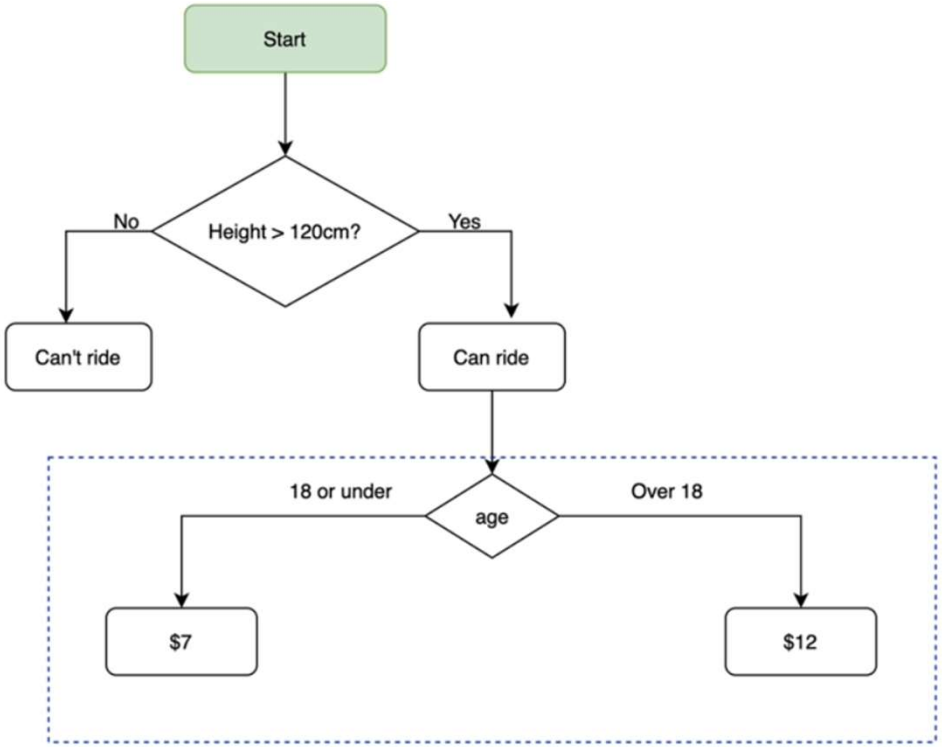
- Write down the code to determine whether an input number is even or odd

Another condition to check

Nested If/else

```
if condition:
   if another condition:
      do this
    else:
      do this
else:
   do this
```

Challenge


Start
Height > 120cm?
No
Yes
Can't ride
Can ride
age
18 or under
Over 18
$7
$12

Moving to If/elif for multiple outcomes

```
# elif example
price = 10000 # there should be some int value
if price > 5000:
    print("That's too expensive!")
elif price > 500:
    print("I can afford that!")
else:
    print("That's too cheap!")
```

BMI 2.0

- Take Height and Weight of user as Input, calculate BMI
- If BMI is below 18.5 they are underweight
- If BMI is above 18.5 but below 25, they have a normal weight
- If BMI is above 25 but below 30, they are slightly overweight
- Over 30 but below 35 Obese
- Above 35 clinically Obese

Get Rid of Nested If with Logical Operators

```
if condition1 & condition2 & condition3:
  do this
else:
  do this
```

Logical Operartors

- Combine multiple conditions
  - and
  - or
  - not