# Session 4 Solutions

## Exercise 4.1

```
clothes = [
    "shorts",
    "shoes",
    "t-shirt",
]

if clothes[0] == 'shorts':
    clothes[0] = 'warm coat'

print(clothes)
```

## Exercise 4.2

```
scores = [10, 33, 23, 19, 43, 8, 0]

print('Number of scores {}'.format(len(scores)))
print('Highest score {}'.format(max(scores)))
print('Lowest score {}'.format(min(scores)))
```

Extension

```
scores = [10, 33, 23, 19, 43, 8, 0]

print('Number of scores {}'.format(len(scores)))
print('Highest score {}'.format(max(scores)))
print('Lowest score {}'.format(min(scores)))

sorted_scores = sorted(scores)
desc_scores = list(reversed(sorted_scores))
print('All scores {}'.format(desc_scores))
```

## Exercise 4.3

```
shopping_list = [
    'bread',
    'cheese',
    'pop tarts',
    'carrots',
]

if 'bread' in shopping_list:
    shopping_list.append('butter')
```

### Exercise 4.4

```
costs = [8.30, 7.12, 5.01, 1.00, 0.99, 5.92, 3.50]
total_cost = 0

for cost in costs:
    total_cost = total_cost + cost

print(total_cost)
```

### Exercise 4.5

```
place = {
    'name': 'The Anchor',
    'post_code': 'E14 6HY',
    'street_number': '54',
    'location': {
        'longitude': 127,
        'latitude': 63,
    }
}

print(place['name'])
print(place['post_code'])
print(place['street_number'])
```

### Exercise 4.6

```
fruits = [
    {'name': 'apple', 'colour': 'red', 'price': 0.12},
    {'name': 'banana', 'colour': 'yellow', 'price': 0.2},
    {'name': 'pear', 'colour': 'green', 'price': 0.19},
]

for fruit in fruits:
    print(fruit['name'])
    print(fruit['colour'])
    print(fruit['price'])
```

## Exercise 4.7

```
import random

first_names = ['Dierdre', 'Patricia', 'Edelbert']
last_names = ['Johnson', 'Davis', 'Oak']

first_name = random.choice(first_names)
last_name = random.choice(last_names)

print('{} {}'.format(first_name, last_name))
```