COS132 Programming **Practical #2** corresponding to the **Syllabus of the week 6.3.-9.3.**2023

Scenario:
This week, Lindiwe Ledwaba has received a 3-Persons Group-Pizza-Voucher for the value of 300 Rand which she wants to redeem together with her two best friends, Natasha Naidoo and Vanessa Venter, at *Antonio's Pizzeria Italiana* once again.
When ordering a 3-Persons Group-Pizza it is possible to **repeatedly** select more and more toppings in **any sequence of choice**, **until** it is enough or until the budget is no longer sufficient. Free coffee is offered **if** the total price of the Group-Pizza comes very close to the total budget.

REQUIREMENTS SPECIFICATION

Pre-Conditions:
- constant: large rectangular base pizza for 3 people without additional toppings: **60,-** Rand.
- constant: additional_olives: 15,50 Rand. *// still the same price as last week*
- constant: additional_onions: 11,- Rand. *// still the same price as last week*
- constant: additional_cheese: 12,30 Rand. *// still the same price as last week*
- constant: additional_salami: 22,- Rand. *// still the same price as last week*
- constant: additional_shrimps: 25,40 Rand. *// still the same price as last week*
- variable: budget: **300,-** Rand.
- variable: invoice: 0,- Rand.

ALGORITHM:
→ See the **Nassi-Shneiderman Diagram** on the right-hand-side of this specification sheet →

Post-Conditions:
After the algorithm has reached its *termination*, all of the following properties must be guaranteed:
- budget ≥ **0,-**
- invoice ≥ **60,-**
- invoice+budget=**300,-**
- invoice *correctly reflects* the *selected* Pizza ingredients (as in the "run" of the algorithm).

YOUR TO-DO-TASKS:
- ***Do not*** *use advanced programming techniques were not yet shown in the weekly Syllabus!*
- **Follow the Algorithm** of the **given** Nassi-Shneiderman **Diagram**!
- **Implement** the given Requirements Specification *correctly* with a C++ program.
- **Test** your C++ carefully with **https://www.onlinegdb.com/online_c++_compiler**.
- **Ask a Tutor for help** in case that you get stuck with the problem.
- **Convince yourself that everything is OK before you submit** your work.
- **Submit** your thoroughly tested C++ program to the ClickUp submission website.

Do not miss the submission deadline!
Belated submissions will be rejected.
NO deadline-extention will be granted.

Advice: Syllabus of the Week includes SWITCH-statements as well as DO-WHILE-loops this week