

**Scenario:**

For her birthday, Lindiwe has received a 100,- Rand Pizza voucher which she wants to redeem at Antonio's Pizzeria Italiana.

**REQUIREMENTS SPECIFICATION**

**Pre-Conditions:**

- constant: base pizza without additional toppings: 40,- Rand.
- constant: additional\_olives: 15,50 Rand.
- constant: additional\_onions: 11,- Rand.
- constant: additional\_cheese: 12,30 Rand.
- constant: additional\_salami: 22,- Rand.
- constant: additional\_shrimps: 25,40 Rand.
- variable: budget: 100,- 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  $\geq 0$ ,-
- invoice  $\geq 40$ ,-
- invoice+budget=100,-
- invoice correctly reflects the selected Pizza ingredients (as in the "run" of the algorithm).

**YOUR TO-DO-TASKS:**

- Implement the given Requirements Specification *correctly* with a C++ program.
- Test your C++ carefully with [https://www.onlinegdb.com/online\\_cplusplus\\_compiler](https://www.onlinegdb.com/online_cplusplus_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-extension will be granted.

