

COM4402: Programming - Flowchart Submission Template

IMPORTANT: READ BEFORE SUBMITTING

This template is configured with **A2 page size** as required by the module specification. Students must download this template, complete the information below, embed their flowchart, and submit according to the file naming convention.

Instructions for Completing The Template

Step 1: Update Your Details

Replace the placeholder text above with your actual student number, name, and submission date.

Step 2: Rename the File

Before submission, rename this file using the following convention:

- **Format:** `STUDENTNUMBER_COM4402_Flowchart.docx`
- **Example:** `2533125_COM4402_Flowchart.docx`
- Replace `STUDENTNUMBER` with your actual student ID number

Step 3: Embedding Your Flowchart

Follow these steps to add your flowchart to this document:

1. **Create your flowchart** using standard flowchart symbols:
 - **Oval/Pill shape** = Start/End
 - **Parallelogram** = Input/Output
 - **Rectangle** = Process/Action
 - **Diamond** = Decision/Conditional
2. **Recommended tools for creating flowcharts:**
 - Draw.io
3. **Export your flowchart** as an image file (PNG, JPG, or PDF)
4. **Insert the image into this document:**
 - Place your cursor after this instruction section (on a new page or at the end)
 - Go to **Insert** → **Pictures** → **This Device**
 - Select your flowchart image file
 - Ensure the image is **embedded** (not linked to an external file)
 - Resize if needed to fit the A2 page
 - Use multiple pages if needed

Step 4: Format Check

Before submitting, verify:

- ☐ Student number and name are clearly visible on the first page
- ☐ Module code and title are correct
- ☐ Flowchart is **embedded** (not an external link)
- ☐ Flowchart is legible and professional
- ☐ File is named correctly: `STUDENTNUMBER_COM4402_Flowchart.docx`
- ☐ Page size is A2 (this should already be set)

Step 5: Submit

Submit your file to the correct submission link on Moodle labeled "**COM4402 Flowchart Submission**"

Flowchart Requirements Checklist

Ensure your flowchart addresses **all** of the following business requirements:

✓ Initialisation

- ☐ Storage of quiz questions and answers (lists/tuples/data structures)
- ☐ Clearly shown in flowchart using appropriate symbols

✓ Presentation

- ☐ Process of displaying each question to the user
- ☐ Display of multiple-choice options
- ☐ Clear visual representation of output

✓ Input

- ☐ Mechanism for accepting the user's answer
- ☐ Input symbol (parallelogram) used correctly

✓ Validation

- ☐ Decision logic for checking if answer is correct/incorrect
- ☐ Diamond symbol showing the comparison process

✓ Scoring

- ☐ Process for tracking and updating the score
- ☐ Clear indication of how score is maintained

✓ Iteration

- ☐ Loop structure for moving to the next question
- ☐ Flow arrows showing return to question presentation

✓ Termination

- ☐ Process after the last question
 - ☐ Display of final score
 - ☐ Program ending clearly marked
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Flowchart Design Best Practices

1. **Flow Direction:** Keep flow consistently top-to-bottom or left-to-right
 2. **Symbols:** Use only standard flowchart symbols
 3. **Text:** Keep labels inside shapes brief and clear
 4. **Spacing:** Leave adequate space between shapes to avoid cluttering
 5. **Clarity:** Ensure all connections are clear with arrows
 6. **Size:** Make flowchart large enough to be easily readable on A2 page
 7. **Professional:** Use consistent line widths and formatting
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FAQ - Frequently Asked Questions

Q: Can I use multiple pages for my flowchart? A: Yes, if necessary, but it's recommended to fit on a single A2 page. If using multiple pages, ensure all pages follow the A2 format and include your student details on each page.

Q: What if my flowchart is too large for one A2 page? A: Reduce the complexity by grouping related processes into single boxes, or ensure your flowchart is properly sized to fit. Consider breaking complex sections into sub-flowcharts if absolutely necessary.

Q: Can I submit my flowchart as a PDF instead of embedding it in Word? A: No. The assignment specifically requires a Word document (.docx) with the flowchart embedded. Do not submit as PDF.

Q: How do I ensure my image is embedded and not linked? A: When inserting a picture in Word, right-click the image and select "**Change Picture**" → ensure it shows "**From This Device**" as the source. You can also go to **File** → **Info** to check that all links are to embedded content.

Q: What should the A2 page look like when printed? A: A2 size is 420mm × 594mm (16.5 inches × 23.4 inches), significantly larger than standard A4 paper. This allows large flowcharts to remain clear and legible.

Q: Can I use colours in my flowchart? A: Yes, colours can enhance clarity, but ensure the flowchart is still readable in black and white (for printing purposes).

Q: What happens if I submit the wrong file format? A: Submissions in incorrect formats may be subject to penalties or rejection. Always submit as a .docx file with the correct naming convention.

Important Reminders

⚠ **Page Size:** This template is pre-configured to A2. Do NOT change this to A4 or any other size.

⚠ **File Format:** Must be submitted as .docx (Microsoft Word format), not PDF or any other format.

⚠ **File Name:** Use the exact naming convention: `STUDENTNUMBER_COM4402_Flowchart.docx`

⚠ **Embedded Images:** Flowchart must be embedded in the Word document, not linked to an external file.

⚠ **Plagiarism:** Your flowchart must represent your own understanding of the algorithm. Do not copy flowcharts from other sources.

⚠ **Deadline:** Submit by the deadline shown on Moodle. Late submissions may incur penalties.

Support and Queries

If you have questions about:

- **Flowchart content:** Consult the assignment brief and lecture notes
 - **Technical issues:** Contact the IT Help Desk or check Word help documentation
 - **Assignment requirements:** Attend office hours or post on the module forum on Moodle
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Good luck with your submission!

Remember: A well-structured flowchart demonstrates clear programming logic and is the foundation for writing good pseudocode in Part 2.