

1) Internship Objectives

At the start of your internship, students will have to work with your company and academic supervisors to come up with a self-defined learning objective for the internship. Students will then have to submit the learning objective in the Project Admin System for the company and academic supervisor's approval. The objective will not be deemed as accepted until the approval from **both** the company and academic supervisors are indicated in the system.

Learning Objective should be set **within 2 weeks after the start of the internship**. Each student needs to identify at **least one** objective each in the following categories:

• Deliverables

Based on the company's requirements on the job scope. The objective for deliverables has to be related to your degree programme.

• Technical Skills

This covers the ability to solve technical problems related to the job scope. An example of this would be to design a time-critical program. The Technical Skill objective could be optimizing algorithm design so that a program runs efficiently.

• Life Skills

Soft skills which help in ensuring a successful internship. An example of a life skill objective could be to aim to improve presentation skills since presenting weekly updates to your company supervisor is required. Other possible skills could include negotiation skills, communication skills, time management skills, problem solving skills, etc.

- Students will need to propose a strategy to achieve your stated Objectives, and also include a method of evaluation to measure improvements.
- Students will be able to modify their Learning Objective after **3 months**. Students **MUST** discuss the revised objective with their company and academic supervisors, and have their approval for the updated Objectives.
- Students will need to evaluate if they have achieved their Learning Objective at the end of their internship.

2) Assessment Matrix

Your assessment will be based on the following 7 criteria:

1. Amount of value delivered to the company
2. Technical knowledge/skills demonstrated during the internship

3. Office soft skills demonstrated during the internship
4. Compliance with expected professional standards and ethics in the workplace
5. Verbal communication skills
6. Written communication skills
7. Understanding of the business in the company you are interning with (company structure/process workflow, career progression/path in the company)

Assessment will be based on the student's written report, feedback from the company supervisor, and the face-to-face presentation with the assigned academic supervisor.

3) Feedback from Supervisor

Your company supervisor will be able to give you ad hoc feedback on your progress at work via the online system aside from the end-of-internship feedback. Company supervisors will be able to trigger feedback to you, or your company supervisor at any time during your internship.

4) Monthly Progress Report

Aside from the interim and final reports, you are expected to submit a monthly progress report at <https://mysoc.nus.edu.sg/~projadm/> which will be viewable by both the company and academic supervisors. Your company supervisors will be required to endorse and verify monthly progress reports. Monthly progress reports will comprise the work done for the month, and your personal reflections. Company supervisors will be provided a link where they can provide feedback on your performance online.

4.1) Interim Report

An interim report will have to be submitted after the 3rd month of the internship. The report will cover

- (1) Current progress of your internship project
- (2) Current status of your self-designed objective,
- (3) Problems and challenges.

4.2) Final Report

Students will have to submit a final report at the end of their internship which will cover

- (1) Work done in your internship project
- (2) The achievement of your self-designed objective
- (3) Problem and challenges
- (4) Career path.

(Please see report format at end of document.)

The Final Report should contain the summarised version of your Interim Report and the continuation from there.

***Note that even though you may be working on the same project with other SoC students in the same company, project reports need to be written in your own words. Students will be investigated for plagiarism if submitted reports are found to be too similar.**

A copy of your interim and final report must also be uploaded to the Digital Library <https://dl.comp.nus.edu.sg> by the same deadline stated.

5) Presentation to academic supervisor

You will be required to give a short presentation to your academic supervisor at the end of your internship. You will be responsible for contacting your academic supervisor to make the arrangements for the presentation. Please discuss with your academic supervisor the format and contents of the presentation (length of your presentation, content/focus of the presentation, will slides be required, etc). We suggest that you make the arrangements for the presentation with your academic supervisor from 2 weeks before the end of your internship in order to be able to have sufficient time to fix a presentation date while allowing yourself time to complete your internship report before the submission deadline.

ATAP Project Presentation and Report Format

1. Introduction

This document describes the standard format for CP3880: Advanced Technology Attachment Programme (ATAP) project reports. Students should ensure their reports conform to the required format before submission for examination.

2. Project Presentation

You are expected to schedule a time with your academic supervisor in advance. The presentation should be approximately 15 minutes long with 15 minutes for Q&A. You should highlight what you accomplished in the internship, with an emphasis on what you learned (technical skills, soft skills). Use slides or demos as necessary. You may omit confidential information but mention if you do.

Some typical questions to expect during the Q&A:

- How does the internship connect to modules you have taken?
- What extra things did you learn from the internship that you didn't have a chance to learn in SoC?
- How does your internship experience affect your career and learning plans?
- What things do you wish you had learned before going to the internship?
- How was the level of guidance you received from the company?

3. Project Report

3.1 Length of the Report

The total length of the report, including appendices, should not exceed 20 **A4 pages**. The main report, without appendices, should be around 4,000 words. The text of the main report should be:

- Line spacing of 1.5 lines,
- In TIMES NEW ROMAN font,
- Font size of at least 11.

Appendices and other materials can be in single line spacing and in a smaller font size.

Appendices and other materials can be in single line spacing and in a smaller font size. Appendices, if any, should be kept small and bound together with the main report. Please consult your project advisor if you are unsure what material you should include in the main report. The report should be clearly written, and should include only relevant information. Note that the inclusion of too much unnecessary detail may cause evaluators to doubt whether the student has really learnt how to distinguish the important issues from the trivial ones.

3.2 Format

All CP3880 project reports must be prepared in the following sequence:

- i. Title page
- ii. Summary
- iii. Acknowledgment page
- iv. Table of contents
- v. Main report
- vi. References (or bibliography, if any)
- vii. Appendices (if any)

Some of the important points on the report format are explained in the following sub-sections.

3.2.1 Front Cover

The words to be shown on the front cover are given in the following sample.

Front Cover of the Report – Sample

**Advanced Technology Attachment Programme (ATAP)
<Interim or Final> Project Report**

at

<XYZ Company>

Reporting Period:

<mm yyyy to mm yyyy>

by

<Student Name>

Department of Computer Science

School of Computing

National University of Singapore

2022/2023

3.2.2 Title Page

The first page of the report should be a title page. The items to be shown are given in the following sample.

Title Page – Sample

**Advanced Technology Attachment Programme (ATAP)
<Interim or Final> Project Report**

at

<XYZ Company>

Reporting Period:

<mm yyyy to mm yyyy>

by

<Student Name>

Department of Computer Science

School of Computing

National University of Singapore

2022/2023

Project Title: Development of a Database Link between Mainframe and PC

Project ID: A9999

Project Supervisor: Prof Xxxx Zzzzzz

3.2.3 Summary Page

This is a summary of the report in not more than 200 words, and it should outline the project. The Keywords and Subject Descriptors should immediately follow the abstract in the same page, and each with not more than five carefully selected items. The descriptors should be chosen from the latest version of “The Full Computing review Classification Scheme” of the ACM Computer Review¹. Any suitable word that reflects the nature and content of the project may be chosen as a keyword.

Summary - Sample

Summary

A prototype system has been developed to connect an IBM PC or compatible to an IBM 3081 mainframe computer for making direct database accesses. The system includes programs which run on both the PC and the mainframe to allow communications and to forward database access queries and the results of the queries. The system was developed based on the ideas which have been used in different microcomputer packages. However, no existing system includes the windowing functionality, or the interactive capabilities have been developed here. The system was developed in Turbo Pascal for the IBM PC, and IBM Pascal on the main frame. The design criteria and the implementation details are presented in this report.

Subject Descriptors:

- C.3.4 Distributed Systems
- D.4.4 Communication Management
- H.3.4 Data Management Systems
- H.3.5 On-line Information Services

Keywords:

Distributed databases, micro-mainframe link

Implementation Software and Hardware:

IBM PC/XT, MS_DOS 3.1, MS-Windows, Turbo Pascal 3.0.1, IRMA Card, IBM 3081, VM/CMS, IBM Pascal

¹ Subject Descriptors can be found at: <https://www.acm.org/publications/class-2012>

3.2.4 Acknowledgement

Following the summary page, students may want to acknowledge the contributions or assistance of others to the project. It is basic courtesy that students should at least acknowledge the host company and the mentors that it provides. This page should be double-spaced, and should be no longer than one A4 page.

3.2.5 Table of Contents

In addition to the heading of each section, sub-headings can also be used but the depth of each should be kept to a minimum.

Table of Contents		
Title		i
Abstract		ii
Acknowledgement		iii
List of Figures		iv
1	Introduction	
1.1	Background and Organisational Structure of Host Organisation	1
1.2	Principal Activities of Host Organisation	3
1.3	Training Programme within Host Organisation	4
1.4	Position of Host Unit within Host Organisation	4
2	Training Schedule and Assignments	
3.1	Training Schedule by Month for the Entire Training Period	5
3.2	Training Assignments Completed in 1 st Month	6
3.3	Training Assignments Completed in 2 nd Month	8
3.4	Training Assignments Completed in 3 rd Month	10
3	Knowledge and Experience Gained	
3.1	Technical Knowledge Gained from Assignments	12
3.2	Organisational/Industry Experience Gained from Assignments	15
3.3	Areas of Applicability of Knowledge and Experience Gained	16
4	Conclusions	
4.1	Summary of Work Completed and Training Received	17
4.2	Problems Faced	18
4.3	Assessment of Training Experience and Concluding Remarks	18
References		19
Appendix A:	Staff Training Programme at Host Company	A1

3.2.6 Main report

The structure of the main part of the report will vary according to the nature of the project. It is both convenient and conventional to organise the report in a hierarchical structure: *Chapters, Sections, Sub-sections*, etc.. In general, there should be an *Introduction* giving an overview and background of the project. Also, there is generally a section for *Conclusions*. Students should consult their project advisors on how to structure their reports.

You should explain the work you did and what you learned in a way the reader can,

- Estimate the level of your accomplishments (delivered value, effort spent)
- Estimate the learning value of the internship (technical skills, soft skills)
- Evaluate your ability to describe technical details in written format

You may omit confidential details regarding projects worked on, client details etc, from the report, but do mention when doing so. Do check with your company supervisor on the content of your report if you are not sure what can/cannot be included.

3.2.7 References

A list of all books, report, papers, etc., referred to in the report or consulted during the course of the project should be given under the References or Bibliography section. Please see Section 3 for format of references and citation.

3.2.8 Appendices

Information of secondary importance (and information whose inclusion would break the flow of the report) should be placed in Appendices. These include program listings, electronic data sheets, data dictionary, etc.

3.2.9 Page number and Section number

All pages in the main report should be numbered from 1, 2, 3, to 50 (the maximum). All appendices should be number as A-1, A-2, etc. for pages under appendix A, and B-1, B-2, etc. for pages under appendix B. (See the Table of Contents.)

A hierarchical numbering scheme for section numbering should be used. For instance, use 1 for the first section, 2 for the second section, 1.1 for the first subsection of the first section, etc. (See Table of Contents.)

4. Format for Reference Citation and References

4.1 Citation in the main text (Based on Publication Manual of the American Psychological Association, 3rd ed).

Citation in the main text should be in the form of the authors' surnames followed by the year of publication. When there are more than two authors and fewer than six authors, cite all authors the first time the reference occurs; in subsequent citations include only the surname of the first author followed by '**et al.**'. When a work has six or more authors, cite only the surname of the first author followed by '**et al.**' and the year for the first and subsequent citations. For example:

An interface processor is the basis for another human-computer interaction model (Edmonds, Jones and Davies, 1982). [First citation]

Architecture of an application system produced using the Dialogue management System (Edmonds et al, 1982) approach is shown in Fig 9... [Second citation]

In Bass et al (1981), the interface for a statistical [First and subsequent citation for a work more than six authors]

4.2 List of References

References should be ordered alphabetically according to the surname of the first author (use the editor's name or the organisation's name when the author's name is absent).

4.2.1 Journal articles

Dicken, G.W., Leitheiser, R.L., Wetherbe, J.C. and Nechis, M. (1984) Key Information Systems Issues for the 1980's. MIS Quarterly, Vol.8, No. 3, September 1984, pp. 135 – 160.

Gorry, G.A. and Scott-Morton, M.S. (1971). A Framework for Management Information Systems. Sloan Management Review, Vol.13, No.1, Fall 1971, pp. 55 – 70.

Gorry, G.A. and Scott-Morton, M.S. (1971b). A New Framework for Management Information Systems. Sloan Management Review, Vol.13, No.2, Fall 1971, pp. 20 – 30.

4.2.2 Books or a report

Kroeber, D.W and Watson, H.J. (1987). Computer-based information Systems: A Management Approach. Second Edition, Macmillan Publishing Company, New York, 1987.

4.2.3 Conference paper

Gouda, M.G. and Dayal, U. (1971). Optimal semijoin schedules for query processing in local distributed database systems. In Proceedings of ACM SIGMOD International Conference on the Management of Data, (Ann Arbor, Michigan, April 29 – May 1, 1980.) ACM, New York, 1981, pp. 164 – 165.

4.2.4 Manuals

IBM. (1984). Information Systems Planning Guide. Fourth Edition, July 1984. SPSS Inc. (1983). SPSS-X User's Guide. McGraw Hill Book Company, New York, 1983.

4.2.5 Unpublished reports and theses

Thorpe, A. (1982). Stability tests on a tender-price prediction model. M.Sc. Thesis, Loughborough University of Technology, UK.; 1983.