

DM8391 (DMD Games)/DM2399 (DET Games)

AY 2015/2016

FINAL YEAR PROJECT

HANDBOOK

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1. Module Information

1.1 Aim

The Final Year Project (FYP) provides an opportunity for final year students, working individually or part of a team, to integrate and consolidate all or part of the principles and applicable skills learnt in their first and second year to develop and complete video game projects.

1.2 Module Objectives

On successful completion of this project module, each student will:

- Integrate and consolidate all or part of skills learnt in the past 2 years
- Design, create and program media elements for the project(s)
- Learn new tools and techniques in the production
- Developed an overall sense of focus and interpersonal skills necessary for good ethics and responsibility
- Give a professional presentation in conveying the final product(s)

1.3 Module Staffs

DIPLOMA	COURSE MANAGER	MODULE LEADER
DMD (Games)	<i>Ms Chua Bee Luan</i> 6550 1843 Chua_bee_luan@nyp.gov.sg	<i>Mr Stanley Haryoto</i> 6550 1848 Stanley_haryoto@nyp.gov.sg
DET (Games)	<i>Mr Andrew Lam</i> 6550 1748 Andrew_lam@nyp.gov.sg	<i>Mr Victor Wee</i> 6550 1859 Victor_wee@nyp.gov.sg

Students must acquire individual project supervisor's contact and paste it on the project board provided.

1.4 Module Period

This module will run for a period of **12 weeks**.

2. Rules & Regulations

2.1 General Attendance and Working Hours

- **Working hours:**
 - Monday to Friday from 0900 to 1800
- **Attendance:**
 - Use finger print attendance outside M601
- **Break periods:**
 - **1-hour lunch** between 1230 and 1430
- **Medical leave:**
 - Medical Certificate must be submitted via email to Module Leaders
 - You have up to **8 days of medical leave**
 - Hospitalisations will be handled on case-by-case basis
- **Special Arrangement:**
 - Only for emergency purposes
 - Will be handled on case-by-case basis
 - Must be approved by the management
 - Do not make own arrangement
- **Coming late:**
 - At all times you are required to be on time
 - At an event you are late due to valid unforeseen circumstances, inform your supervisors and you need to work back the hours lost
 - You are only allowed up to **60 mins late for 5 times** throughout the project

2.2 Usage of Labs

- All students (male and female) are required to dress appropriately
 - No singlet, slippers and revealing attires
- Eating and drinking (except bottled drinks) are PROHIBITED
- Playing of games, watching videos should be limited to during break time unless the materials are related to project
- Please do not disturb others
 - Wear headphone/earphone when listening to music
 - Lower your volume when having discussion or during conversation
 - No shouting (especially using vulgar language) and loud noises
 - No unnecessary gathering

- You may use the discussion table provided at the front of the room for meetings and group discussions
- Student(s) who are not working on FYP module are NOT allowed in the room
 - Any staffs and students in FYP room have the rights to ask them to leave immediately
- Please do not share or let others use your computer especially to those who are not working on FYP
- Throw all litters and rubbish into the dustbins provided
- Please do not touch any of the displays at the front of the room except when you are given permission to do so
- Gambling and playing of sports such as football, basketball, skate, roller blade, etc in the labs are PROHIBITED

2.3 Breach of Rules & Regulations

- Warning letter will be issued for any breach of rules and regulations
- Demerit points will be given towards the final grade
- Disciplinary actions will be taken if breach of rules and regulations continue
- Student(s) who are not responding to warnings will be referred to Course Managers and Director

3. Assessment Schedules, Criteria and Deliverables

3.1 Assessment Schedules & Deliverables

WEEK	ASSESSMENT	DELIVERABLES	REMARK
2/3	Project Initiation Presentation	<ul style="list-style-type: none"> ▪ Presentation slides consisting of game ideas, concepts, scope, schedule & task allocations, researches, unique selling points, etc ▪ Video (if any) ▪ Paper prototype (if any) 	<ul style="list-style-type: none"> ▪ All students to attend all presentation ▪ Both diplomas to present as team
6/7	Progress Update Presentation	<ul style="list-style-type: none"> ▪ Softcopy of Game Design Document (GDD) by DMD (Games) – <i>refer to appendix C</i> ▪ Draft softcopy of Technical Design Document (TDD) by DET (Games) – <i>refer to appendix E</i> ▪ Presentation slides consisting of project information, game ideas, schedules, individual task and schedules, concept sketches, researches, etc ▪ Playable prototype ▪ Paper prototype if necessary to help in explaining game play 	<ul style="list-style-type: none"> ▪ Both diplomas to present as team ▪ Only come for the specific timeslot

WEEK	ASSESSMENT	DELIVERABLES	REMARK
12	Final Presentation	<ul style="list-style-type: none"> ▪ Final Softcopy (.doc and .pdf) of GDD and TDD – <i>refer to appendix C, D, E and F</i> ▪ Softcopy (.doc and .pdf) project report – <i>refer to appendix A and B</i> ▪ Technical Document (if any) to document pipeline for creating of art assets, importing & exporting into game, etc – please check with supervisor(s) ▪ Presentation slides consisting of project information, game ideas, schedules, individual task and schedules, concept sketches, researches, etc ▪ Promotional materials: <ul style="list-style-type: none"> ▪ A3 poster, Portrait ▪ Video trailer (2-3 mins) and Instructional video on how to play the game <ul style="list-style-type: none"> ▪ High definition (HDTV) 1080p (1920×1080 progressive scan) 16:9 ratio. Quicktime, H.264 or MPEG4 codec, high quality ▪ Should include some game play demo ▪ Must playable on at least VLC player ▪ At least 5 high quality screenshots ▪ Electronic Accumulated Experience Sharing (e-AES) – <i>refer to appendix G</i> ▪ Server submission – <i>refer to appendix H</i> ▪ NYP and SIDM logos must be present in all documents, posters, video trailers and final game prototype 	<ul style="list-style-type: none"> ▪ Both diplomas to present as team ▪ Only come for the specific timeslot

3.2 Assessment Criteria

- **Quality of Work:** design & aesthetics, programming
- **Attitude & efforts:** amount of contributions, punctuality, initiative, attendance, discipline, leadership, performance
- **Project management:** project planning, task management & scheduling, proper documentations, team dynamics
- **Game Prototype:** completeness, fun factor, playability (game and level design), meeting requirements, polished
- **Presentations:** clarity, attire
- **Demerits:**
 - *Given for poor punctuality and attendance*
 - *Any offence committed during the project period*

4. Attitude & Mindset

- Every student:
 - Must be have the *goal of delivering complete project* to either clients, supervisors or any owner of the project
 - Must be responsible to produce their work within the scheduled deadline
 - Should take criticism *positively*
 - Is expected to be punctual, independent, responsible, initiative, reliable and discipline
 - Must learn to *communicate effectively and respectfully* to other team members, supervisors, lecturers and clients
- Feedbacks:
 - Supervisors may advice ways to solve problems faced in the project but DO NOT expect *solutions*
 - Project updates should be initiated and arranged by students with supervisor weekly
- It is necessary to establish a way to contact your supervisor from the first day of FYP

5. Hardware & Software

- Each student will be provided with a standard PC (comes with mouse and keyboard) installed with common software required
- Additional software installation can be requested to supervisors and/or module leaders
- Additional hardware specific to project should be requested through supervisors
- Students are required to bring their own tablet and stylus

6. Job Responsibilities

Please take specific roles within the design team to make clear commitment to the project. You are required to take 3 and more roles. For examples:

DMD (Games):

- Game Designer
- Character Artist
- Background Artist
- UI Artist
- 3D Modelling and Texturing Artist
- Rigger and Animator
- Etc

DET (Games):

- Physics Programmer
- Graphics Programmer
- UI Programmer
- Network/Database Programmer
- etc

7. Appendices

A. Project Report Format

Every project group must submit the Project Report by the specified deadline. This section serves as a reference to the project group in its report organization. However, this is only a recommended format. Students are allowed to attach any contents which are relevant to the report.

The report can be prepared using the various software productivity tools that the students are familiar with, including word processing, graphics presentation and flow-chart software, etc.

Hand-written reports are **NOT** acceptable. **ONLY** the bound project report will be acceptable. DMD (Games) and DET (Games) students **need only submit ONE report per team**.

The Layout

The report may follow the standard stated below or a presentable format. You may include additional sections such as preface, acknowledgment, glossary of terms and symbols used, etc.

As a general guideline, your report (excluding the cover page and the appendixes) should **not exceed 50** pages. The report should be prepared using **one and a half line spacing, font size 12**.

File naming convention: [PROJECT_NAME]_REPORT.docx

- **Cover Page**, this should reflect (Refer to Appendix B)
 1. Project name
 2. Report name
 3. Project team number & identity
 4. Supervisor
 5. Team members & Roles
 6. Latest amendment date
 7. NYP logo

- **Table of Contents Page:** this should list all the chapters/sections found in your report with their respective page number.
- **Report Body:**
 1. Header and/or footer should be included to show at least the project name, the chapter name, the file name of the document, date and the page number.
 2. Each section/chapter should begin on a new page with an appropriate heading.
 - **The Contents** The following sections/chapters must be included in the Project Report. However, you have the option of including other topics.
 - **Introduction** This section should describe briefly what the team has done during the project, what the report encompasses, an overview of the game, specification, and the objectives of the team.
 - **Development Plan** This section describes the team organization (with a diagram), the task allocation and the responsibilities of each team member. Marks will be awarded based on the tasks performed. Thus, it is important to list all the tasks completed by each member. The team must submit 2 project schedules (Gantt Chart) reporting the progress of its activities (Planned vs. Actual) for the whole project duration. This chart should be used by the team leader and the project supervisor to monitor the progress of the team during project development.
 - **Detailed Description of Individual Task List and Contributions** This section should contain a detailed description of the artworks (for DMD Games students) and features/functionalities (for DET Games students).
 - **Member Feedbacks** This section should contain all members' feedback of working on the project.
 - **Summary of the Problems Encountered** This section summarizes the problems encountered by the team and how they are resolved. You should also highlight any unsolved problems.
 - **Project Summary / Future Enhancements** This section summarizes the team's achievements and outlines any possible future enhancements that the team suggests to improve their project/system.

- **Appendixes**

1. **Art Listing:** You should provide an index page showing the list of artwork found in this appendix.
2. **Concept Sketches:** You should include all concept arts you have done during the production phase
3. **Screen Dumps:** You should include all the screens as seen when your game is run.
4. **Minutes of Meetings**

B. Project Report Cover

- Please change the year in the copyright statements accordingly

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PROJECT REPORT



<Game Title>

<date>

Prepared By:

<NAME OF THE TEAM>

<name> <admin no> (Team Leader)

<name> <admin no>

<name> <admin no>

<name> <admin no>

<name> <admin no>

C. Game Design Document (GDD) Format

This is only a recommended format of GDD. Any information relevant to your game design can be added into the document.

The Layout

The GDD may follow the standard stated below or a presentable format. You may include additional sections such as preface, acknowledgment, glossary of terms and symbols used, etc.

As a general guideline, your GDD (excluding the cover page and the appendixes) should **not exceed 50 pages**. The report should be prepared using **one and a half line spacing, font size 12**.

File naming convention: [PROJECT_NAME]_GDD.docx

The followings are recommended sections you should include:

- **Cover Page** - refer to appendix D
- **Game Overview**
 - **Introduction:** Description of your game in one short paragraph
 - **Story Synopsis:** Short introduction of the game story (if any)
 - **Genre**
 - **Target Platform**
 - **Target Market**
 - **Unique Selling Points**
- **Game Mechanics**
 - **Game Play Elements:** Description of what the game play are
 - **Game Characters:** Description of the characters involved in the game e.g: protagonist, antagonist, bosses, etc
 - **Game Flow/Screen Flow:** Flowchart to show your game logic and menu screen flow
 - **Input System:** Description of what input is used e.g: which keyboard keys, mouse click, use diagram to make it clearer
 - **Scoring System:** Describe how score is calculated
- **Level Designs**
- **User Interface**
 - **Heads Up Display**
 - **Game Menus**
- **Appendices:** Can include sketches & researches for characters, background, etc

D. Game Design Document Cover

Please include NYP and SIDM logo on the cover. Remember to change the year to the current year.

2013 © GAMES CREATION/SIDM/NYP



[GAME TITLE/LOGO HERE]

[STUDIO NAME/LOGO HERE]

Member 1 (Admin No 1)

Member 2 (Admin No 2)

Member 3 (Admin No 3)

Member 4 (Admin No 4)

Member 5 (Admin No 5)

E. Technical Design Document (TDD) Format

This is only a recommended format of TDD. Any information relevant to your technical design can be added into the document. The idea of TDD is so that another person taking over the project is able to understand the code you are writing, what algorithm you are using

The Layout

The TDD may follow the standard stated below or a presentable format. You may include additional sections such as preface, acknowledgment, glossary of terms and symbols used, etc.

As a general guideline, your TDD (excluding the cover page and the appendixes) should **not exceed 50 pages**. The report should be prepared using **one and a half line spacing, font size 12**.

File naming convention: [PROJECT_NAME]_TDD.docx

The followings are recommended sections you should include:

- **Coding Standards:** Description of how your coding conventions such as all classes begins with letter 'C' (e.g: CBullet), all member variable name in a class begin with 'm' (e.g: mScore)
- **Software Architecture:** Using diagrams explain what are the engines, libraries you use and how they are interlinked with your game
- **Directory Structure:** Explain your solutions folder directoy
- **File Formats:** Explain all the file formats used in the development of the game
- **Resources:** List down the resources such as textures, sound, etc you use in the game, what naming conventions for the file
- **Class Diagrams**
- **Technical Features:** Describe and explains specific features that you create for example, collision detection algorithms, scene graph algorithms, et. You should explain ENUM and CONSTANTS you used in the codes. Use diagrams to make it clearer.

F. Technical Design Document Cover

Please include NYP and SIDM logo on the cover. Remember to change the year to the current year.

[GAME TITLE GOES HERE]

Technical Design Document

Done by:

[Team Name]

[List down members]

G. Electronic Accumulated Experience Sharing (e-AES)

You are required to submit a write up for e-AES as one of your deliverables for FYPJ. Your write up might be selected for online posting at SIDM forum.

Objective:

Provide a platform to share your experiences to your peers/juniors. It will also broaden their industrial experience, learn and be prepared for the related projects through your sharing.

Submission:

- 1 write-up per team
- Naming convention: [PROJECT NAME]_eAES.docx

Style of Writing:

- Informal and Casual (blog style or any style that will entice readers of your age).
- **No provocative language.** Your information should be constructive and helpful to your peers

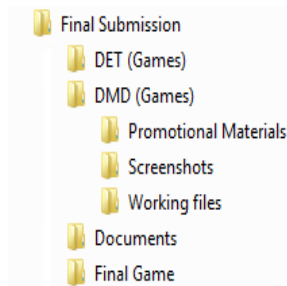
Format (recommended):

- **Introductions** – what is your project about?
- **Individual experiences** (each member write personally):
 - Share your experience (esp. any memorable event during your projects)
 - Interaction with clients? (if is applicable)
 - Tips and advice for future batch of students attempting similar project.
 - Any additional info which will be helpful for your fellow peers to know?
 - After thoughts? What can be done/improvements to make the game better?
 - You may suggest your own topics as long as they are constructive.
- **Attachments:**
 - Group picture
 - Field trips, event, exhibitions related to the project

H. Server Content

All the softcopy deliverables listed in the Final Presentation must be submitted to the server.

The following folder structure must be strictly adhered:



- DMD (Games)
 - Promotional Materials – consist of poster in TIF/PSD and JPEG format
 - Screenshots – consist of at least 5 high quality screenshots
 - Working files - consist of all the working files in photoshop, maya, after effects, etc
- DET (Games)
 - Consist of all the source codes
- Final Game
 - Consist of the executables, trailer and instructional videos
 - Include installation instructions and setup file (if any)