WESTMINSTER INTERNATIONAL UNIVERSITY IN TASHKENT

BSc (HONS) BUSINESS INFORMATION SYSTEMS

BUSINESS INFORMATION SYSTEMS PROJECT

6BUIS007C-n

MODULE HANDBOOK 2024 – 2025

September 2024

Contents

1. Introduction

This guide has been written for undergraduates on the Business Information Systems degree at Westminster International University in Tashkent to assist you in preparing for your final year project. It explains the implications of taking a project and is intended to give an indication of what a project entail. It is also intended as a reference guide for students who are carrying out a project in all aspects from the planning stages to submission. The guide is aimed to support frequently asked questions on project content, submission details and other academic and organizational questions throughout the academic year and each component's submission.

The structure of this handbook begins with identifying what you must consider as you begin to look at what a project involves. It then goes on to explain the regulations pertaining to projects. Then it gives guidance on how to go about conducting a project. Each submission component is described in detail separately.

1.1. How the project fits into your Undergraduate programme

The project module **6BUIS007C-n** is a **20-credit** level and represents a substantial piece of independent work (typically 300 hours). The project module represents 16% of the Level Six programme; therefore, it is important that your effort reflects the importance of the project to your overall degree classification.

It is a regulation of the BIS degree that the project must be passed (i.e. over 40%) for you to be awarded an Honours degree.

There are one hour lectures scheduled each week on general support and guidance topics, but you are expected to work on your own most of the time.

You will also have a Supervisor who will give you guidance and generally make sure you are keeping to the schedule you provided in the Project Implementation Document (PID), but he/she will not do the work for you.

A project represents an opportunity for you to be involved in a substantial piece of work of your own choosing. It also provides a demonstration of your development of self-motivation, time-management skills, and your ability to prioritize workloads, to work under stress, to meet deadlines and to prepare a cogent analysis based on clearly articulated evidence.

Your project will provide useful evidence of your ability if you decide to apply to do further study or when applying for a job. On the other side of the coin, it does require you to work responsibly, be disciplined and realistic in setting targets and meeting deadlines and be prepared to reorganize if things do not go to plan. You will have to be fairly determined in tracking down books, reference sources and possibly carry out interviews. You will have to do all this on your own and plan the work accordingly.

If you are not very good at completing work on time, you will get behind on the project and will find it almost impossible to catch up. Therefore, to help keep you on track you should arrange to meet your supervisor and to agree some dates when you will present draft sections of the work.

In summary, the project will demonstrate your abilities and learning in project management, business research, development, and implementation of the IS.

1.2. The Structure of the Project

Assessment is carried out in three main stages.

	Assessment component	Deadline	Value
Stage 1	Project application form	TW2: 27 September 2024, Friday	-
	Initial Proposal (Project Initiation Document)	TW6: 21 October 2024, Monday	5%
Stage 2	Progress report & Demo	TW2: 24 January 2025, Friday*	15%
Stage 3	Final project report	RW: 4 April 2025, Friday*	80%
	VIVA Voce	18-30 April 2025* (3-4 days within those weeks)	

*- deadlines are subject to change

1.3. The Role of the Supervisor

Your Supervisor should provide general support for you in the research process by:

- ❏ helping you to decide on the scope of your project;
- ❏ assisting you in managing your workload, helping you to set and maintain realistic work targets;
- ❏ checking up on the progress you are making throughout the year, including making comments on a draft of each assessment component;
- ❏ providing timely and detailed feedback on each assessment component and guiding on improvement;
- ❏ co-assessing the final outcome.

You should **not** expect your Supervisor to:

- ❏ suggest a title, topic or project;
- ❏ provide all the relevant literature;
- ❏ guide every detail of your work, solve your programming and development issues, suggesting the technology stack or language to use;
- ❏ correct your grammar, proofread your final drafts;
- ❏ tell you likely final mark;
- ❏ address all your inquiries immediately without proper meeting/discussion arrangements;

You must fill in a Project Application Form no later than **27 September 2024, Friday**, so that a supervisor can be allocated. You are likely to find your Supervisor most useful in the early stages, getting you started. Although supervisor allocation will be done considering your indicated supervisor in Project Application Form, it also depends on hours workload of the faculty staff and research interests, so it is not guaranteed that chosen supervisor will be allocated.

You are likely to also find your Supervisor useful in the early stages when you are:

- ❏ putting together a proposal of the methodology you will adopt;
- ❏ establishing your time-scale;
- ❏ preparing the Progress Report.

Another time when you should make use of the Supervisor is to read through a first draft of your work but you must give them sufficient time (at least 1-2 weeks) to do this and take into account the workload (and vacation times) of your Supervisor.

You and your Supervisor may consider it the most effective use of your time to meet for 20 – 30 minutes or keeping email communication every two to three weeks; others might wish to meet for a longer time at less frequent intervals. During your first meeting you may agree on a learning contract which sets deadlines for various stages of your project and times to meet. This is designed to help you plan your time effectively, and how you plan your time is a

consideration when assessing your project.

Each Supervisor is allocated approximately five hours of tutorial supervision time to spend with you over the two semesters in which you are developing your project.

Communicating with your Supervisor

Email is the primary communication tool of the university. Allow your supervisor from 1-3 working days to answer your emails. Make sure you properly communicate with your supervisor, arrange meetings well in advance and be on time.

It is suggested that the meetings or email communication could be arranged as follows:

First Semester

When (teaching week)	What	How long
Week 2	Confirming and refining of topic	30 mins
Week 3-4	Discussing initial literature review	30 mins
	Discussing PID (research question, objectives, methodology, timetable)	
Week 5-7	Feedback on research proposal and planning for the next stage	30 mins
Week 7-10	Review of progress	30 mins
Week 11-12	Discuss Progress report & demo presentation	30 mins

Second Semester

Week 4-6	Feedback from progress report and demo presentation	30 mins
Week 8-9	Review of first draft	60 mins
Weeks 10-12	Final draft feedback	30 mins

Plan the timing of your meetings carefully considering not only your timetable for your project but also your group work for other modules. This is not a great deal of time and must be used effectively. You must prepare for your meeting to gain the maximum benefit. Make sure that you have a clear objective for each meeting and that your Supervisor knows what this is before the meeting so they can be adequately prepared. If you have several questions you want to raise, or large amounts of text which you want them to read, post them in advance of the meeting.

It is your responsibility to make contact with your Supervisor. It is most unlikely that they will come looking for you, so if you want help you must contact them. Most

importantly, maintain deadlines and have realistic expectations of your Supervisor. Give your Supervisor sufficient notice of a meeting for them to adequately prepare. Make sure you meet the deadlines you have set and only cancel meetings if absolutely necessary e.g. illness. It is essential that you give your Supervisor sufficient notice of your inability to attend a meeting to allow them to make effective use of their time. This is not only courteous, but it means they are more likely to be able to discount the lost meeting from your allocation of 5 hours and so make up the time with you. Finally, there are times of the academic year, such as the exam period and immediately after, when your Supervisor will be unavailable because of their personal workload.

1.4. Other support

General information will be sent out at various times:

- ❏ by e-mail using your WIUT account;
- ❏ Business Information Systems Project WIUT Learning Board
- ❏ BIS discussion board

In addition to the support of your Supervisor, you will of course make use of the computing services and also the learning resource centre. There are several sources there you can make use of:

1. Electronic journals These include much more specific information thank books – skillful use of these sources will greatly enhance your project. Details can be found via the Learning Resource Centre Online Database Section
   [https://intranet.wiut.uz/LibraryLRC/Index]

The learning resource centre will be running short tutorials for those who want to learn how to search for journals, though often the best way is to practice and get familiar with the various portals. Make sure you use appropriate search terms and consult with your supervisor on journals that might be helpful for you.

2. Books on research (all books are in the 'Research Methods' section of the library unless indicated

A. Computing Projects

- ➔ Weaver, Philip (2004) Success in your project: a guide to student system development projects, Harlow: Pearson (QA76) (about 10 copies)
- ➔ David L. Olson (2014) Information Systems Project Management. Business Expert Press

B. Business Research

➔ Saunders, M., Lewis, P. and Thornhill, A. (2003) Research Methods for Business

Students. (3rd edition) London: Pearson Education (650.017) (60 copies)
You should be familiar with this text from Research Methods – it gives a good overview of the research process but is an introductory text and at level 6 you should try and go deeper.

- ➔ Easterby-Smith, M., Thorpe, P., & Lowe, A. (2002) Management Research- an introduction (2nd edition). London: Sage Publications (650) (10 copies)
  Very good discussion on research philosophies and approaches. More advanced than Saunders.

- ➔ Zikmund, W.G. (2003) Business Research Methods (7th ed) Ohio: South-Western (658.4) (5 copies)
  A very comprehensive text with lots of cases and examples of real life business research and particularly good for marketing students.

- ➔ Cooper DR, Schindler PS (2003) Business Research Methods (1 copy)
- ➔ Collis Jill, R Hussey (2003) Business Research, 2nd edition (1 copy)
- ➔ Koop, G. (2000) Analysis of Economic Data, John Wiley & Sons (1 copy)

C. General research skills

- ➔ Oliver, Paul, Students Guide to Research Ethics (1 copy)

3. University Academic Writing Support

As BIS Project incorporates both Project development and academic paper, it is very important to produce high quality, well written and referenced academic paper to cover all learning outcomes and succeed in module. For more details on WIUT Academic Writing Support please refer [http://sp.wiut.uz/SitePages/Academic%20Writing%20Support.aspx] Also available for one to one meeting arrangements

4. List of recommended books and resources

- ➔ Ghauri, Pervez., Gronhaug, Kjell & Ivar Kristianstund (1995) Research Methods in Business Studies. A Practical Guide, Harlow: Prentice Hall (Ref) (1 copy)
  Grix, Jonathan (2004) The Foundations of Research, Basingstoke: Palgrave McMillan. (5 copies)
  This is a short but comprehensive guide to research – a very useful starting point.

- ➔ McQueen, Ron & Knussen, Christina (2002) Research Methods for Social Sciences: An Introduction, Harlow: Pearson Education (4 copies)
  Very comprehensive text, particularly strong on analysis of quantitative data.

- ➔ Bell, Judith & Opie, Clive (2002) Learning from Research. Getting more from your data, Buckingham: OUP (1 copy)
- ➔ Bell, Judith (1999) Doing your research project: a guide for first-time researchers in

education and social science (3rd edition) Maidenhead: OUP (370.7) (5 copies)
Easy reading introduction, though focused on education research.

- Denscombe, Martyn (2003) Good Research Guide for small-scale social research projects (2nd ed), Maidenhead: Open University Press (Ref) (1 copy)
- Denscombe, Martyn (2002) Ground Rules for Good Research (1 copy)
- Murray, Rowena (2002) How to write a thesis (2nd ed) Maidenhead: OUP (Ref) (2 copies – one in reference)
- Silverman, D (2000) Doing Qualitative Research: A Practical Handbook, Sage, London. (5 copies)
- Blaxter, Loraine et al (2001) How to Research (1 copy)
- coursera.org
- startandroid.ru
- Head First Android Development by Dawn and David Griffiths – free online download
- Articles on Habrahab
- Oxland, K. (2004) Gameplay and Design, Addison Wesley, ISBN: 978-0321204677
- Rabin, S., (2010). Introduction to Game Development. 2nd edition. Course Technology, a part of Cengage Learning
- Larman C, (2004) Applying UML and Patterns: An Introduction to Object Oriented Analysis and Design and Iterative Development. Prentice Hall
- Irish D., (2005) The Game Producer's Handbook. Premier Press; illustrated edition, 2005
- Kremers, R (2009) Level Design, Concept, Theory & Practice: A K Peters Ltd, ISBN:978-1- 56881-338-7
- Chandler ,H. M. (2014) The Game Production Handbook 3rd edition,Jones & Bartlett Learning, ISBN: 978-1-4496-8809-7
- Kelly, C (2012) Programming 2D Games, CRC Press, ISBN: 978-1-4665-0868- 2
- Schell, J (2008) The Art of Game Design, Morgan Kaufmann, ISBN: 978-0123694966

5. Best projects BIS students

   Available through WIUT Learning Board

2. Stages of the Project

2.1. How to decide on a project

This is an essential stage in producing a project. You need to determine the area in which you

have achieved your best results, remember that you are on a Business Information Systems course and your project should reflect this fact.

The Learning Outcomes for the Project

- ❑Carry out a comprehensive literature review of issues related to a selected area of Business Information Systems and critically evaluate their findings.
- ❑Prepare a timetabled research plan and manage their time effectively so that they can follow this plan
- ❑ Articulate competency in aspects of: business needs analysis, business systems design, and implement/review some aspects of the system.
- ❑Critical evaluation of work undertaken and analysis of their findings in a suitable manner and complimenting appropriate conclusions
- ❑ Produce a well-structured and coherent report of an extended piece of work and be able to defend this at a viva voce examination
- ❑ Justify the methods and processes used in carrying out the project
- ❑ Demonstrate creative thinking in approaching novel problems

Business Scope

- ➢ Development of an ICT strategy
- ➢ Situation analysis
- ➢ SWOT and PESTL analysis
- ➢ Competitor analysis
- ➢ Industry and Sector analysis
- ➢ Impact analysis
- ➢ Primary and/or secondary research
- ➢ Marketing research elements – Place, Product, Promotion, Price

Computing Scope

- ➢ IT development methodologies
- ➢ Website and/or database development
- ➢ Game development
- ➢ Mobile app development
- ➢ Internet of Things
- ➢ IT design techniques and HCI
- ➢ IT logical design and business process reengineering
- ➢ Business process automation, line-of-business solutions
- ➢ Producing quality products – emphasis on testing, code quality, product reliability
- ➢ Understanding business processes, users, and requirements

Project Management Scope

- ➢ Initiating an IT project within a specific business environment and time
- ➢ Project planning
- ➢ Presenting interim results
- ➢ Report writing and referencing
- ➢ Project tasks breakdown and tracking the progress

Your project must provide adequate scope for you to be able to fulfill these learning outcomes. e.g. a research comparison type project will not provide sufficient scope to enable you to fulfill all of the learning outcomes.

Think carefully – before you attempt to do a project in a topic where you have not performed well or where you have limited knowledge. e.g. a finance based application could provide sufficient scope to fulfill all of the outcomes, however, if you have only studied the core finance modules it is unlikely you will have the depth of knowledge required to meet the required standard.

To choose a topic, you might find doing the following helpful

DO

- look back at your previous modules taken and assignments completed and thinking about which was most interesting for you;
- read books, academic articles and media coverage around your topic – this might trigger an idea for your project and it will also give you an indication of the amount of sources available on your topic. If you suspect that you may not be able to find enough information on an issue then look for a related area to investigate;
- talk with your lecturers and other WIUT staff, along with professionals in your area of interest;
- attend the session in your subject area at which WIUT staff will present their research interests;
- look around your community, workplace, university to identify business or process issues which can be improved/solved with implementation of IS;

Remember, if your topic is close to the interests of your supervisor, they will be better able and more interested in supporting you!

DON'T ... give in to the temptations described by Silverman (2000):

- 'hanging out' i.e. an unstructured immersion in the field going nowhere, slowly. To avoid this,

  try using earlier findings and extending their limits;
- the 'kitchen sink' approach i.e. selecting a large issue and writing up all you can find

about it.

You should avoid the temptation to write a little about a lot and aim for a lot about a little. Silverman (2000) suggests that you can overcome this temptation by drawing a flowchart setting out the key concepts and how they relate;

- the 'grand theory' approach i.e. looking only at theoretical perspectives and not testing them in the real world. OK for a PhD but not much help towards getting a job. Try finding some data if you want to avoid fieldwork.

There are four main areas to consider when determining an issue to research:

- ❑ complexity
- ❑ access
- ❑ resources
- ❑ expertise

Complexity usually arises in two ways: (i) a wide topic (e.g. organisational analysis) for which there is a large amount of self-referential literature at a level of abstraction which is difficult and time-consuming to comprehend and within which it is difficult for an undergraduate student to make an original contribution; (ii) a very narrow or relatively new topic for which there is little literature and within which, whilst it is relatively easy to be original, it is more difficult to develop a coherent academic argument. You need to choose an issue which falls between these two extremes.

Access to primary sources needs to be guaranteed before you start. If your project will require access to organisations, you cannot assume that this will be allowed. Senior managers are busy people for whom an undergraduate project will have a low priority. Personal contacts within organisations can be helpful but beware of expecting too much of them – they may not be able to help as much as they promised.

Resources are limited in the University so any costs such as paper, photocopying, postage, and telephone will be borne by you. Also remember about resources when designing IS with hosting, payment systems integrations, advanced and recent technology incorporations (e.g. 3rd party devices, IoT and etc).

Expertise refers to your knowledge and ability and to that of your supervisor. Start by reflecting on your strengths and weaknesses as a researcher. Appraise your subject knowledge. Identify any gaps in your knowledge and assess if there are ways of filling these from modules on the course, as your workload will become impossible if you have to take on additional study. It is essential that you select an issue which is within the expertise of the academic staff in the school. Build on your strength.

What sort of things can be the subject of my project?

The subject of the project can be drawn from any area relevant to Business Information Systems and drawing on your other modules or personal knowledge and experience. This gives you a bewildering range of topics from which material can be drawn.

Perhaps the first thing to realize is that this is a project that comprises several different stages and elements and not a very long descriptive essay.

By its nature the project is defined by the problem which is being solved rather than merely its size. The project is likely to use secondary sources since it is unlikely that many students will be able to relate their personal business experience to the project. However, if you have worked in business before embarking upon (or even during) your studies, then this may form a part of the project as well.

Develop a well-designed piece of software that solves a particular business/operation/social related problem or game. Suitable project areas include: Visual Basic/ Java/ C#/ Python/ PHP/ Javascript/ Asp.net/ C++/Swift programming; database development that include Oracle Forms and PL/SQL programming.

Web sites using Microsoft ACCESS databases are not considered suitable for this category. In general, your project should be more complex than the coursework on other modules, including more technical and research complexity.

Business Content

- **Development of an ICT strategy**

  You must explain your choice of strategy in relation to your project.

- **Situation analysis**

  You must put the project into context, taking into account environment, constraints, risks and development timing

- **SWOT and PESTL analysis**

  Strengths, Weaknesses (internal factors), Opportunities and Threats (external factors) Establish the wider background in which the business will operate (PESTL). Political, Economic, Sociocultural, Technological and Legal concerned with the wider strategic situation, and with the organisation and its environment. Political identify any relevant policies and their relevance to the project; Economic identify any relevant economic factors relevant to the project; Sociocultural identify relevant cultures e.g. business culture, company culture and the individual; Technological identify technology relevant to the project, the organisation and its competitors. Legal identify any relevant laws governing business and trading practice, consumer protection law, employment law and taxes;

- **Competitor analysis**

The market: the nature of competition; the extent to which the market is under or over-

provided; the nature of activities of different players concerned

❑ **Industry and Sector analysis**

Suppliers, Distributors, Potential entrants, Substitution, Market segmentation, Product-market mix

❑ **Impact analysis**

Describe the potential risks specific to the project, any vulnerability and the strategies for minimizing risk.

❑ **Primary and/or secondary research**

Your project must be drawn upon primary and/or secondary research data, including relevant statistics on industry, product, users, revenues, user profiles and preferences, business context and etc.

❑ **Marketing research elements – Place, Product, Promotion, Price**

Project must be drawn in terms of marketing fit – including place (market segmentation, size and niche), product (what is the uniqueness of the product, what substitution, unique value proposition), promotion (how product will be promoted and how users will know about it) and price (initial calculation or budgets or revenue generation or budget scope can be added).

Computing Content

❑ **IT development methodologies**

Selection of suitable methods relevant to the project nature;
Justification for a preferred solution;
Analysis of Fact-finding;
The methods adopted to fulfill the project design objectives;

❑ **Website and/or database development**

Development of system/application that provides a solution to the problem identified in the project Aim.
The system/application fulfills the objectives identified in the project development requirements.
The system/application fulfills the objectives identified in the project implementation requirements.

❑ **Game development**

Development of a 2D/3D/VR/AR game which has a unique value proposition and can be distinguished over other games on the market

❑ **Mobile application development**

Development of a mobile application which is ease of use and provides a more effective solution compared to the web applications and have value proposition which distinguishes it from mobile versions of the web applications

❑ **IOT application development**

Development of a Internet of Things applications with the use of third party devices (Raspberry PI, Microblog, Arduino, various sensors, voice and video devices, functional software) which provide effective solution to a researched problem area by use of IoT technology

❑ **IT design techniques and HCI**

Selection of suitable techniques relevant to the project;
The techniques used fulfill the design objectives.
The techniques are used correctly to produce the design documents identified in the project design objectives.
The identification of and use of relevant interface design techniques to produce a user interface that fulfills the project requirements

❑ **IT logical design and business process reengineering**

Demonstration of logical/ high level design thinking in business process reengineering and/or mapping manual world to the IS context to serve business/social needs;

❑ **Business process automation, line-of-business solutions**

Demonstration of business processes understanding in IS context which fit line of business to automate process, store/process/share data and create value from transaction data;

❑ **Producing quality products – emphasis on testing, code quality, product reliability**

Selection of suitable techniques which are safe, robust and reliable in terms of data security
Selection of suitable techniques for user testing, product testing and user acceptance testing
Selection of suitable techniques and research in the fields of product reliability, design for reliability and quality

❑ **Understanding business processes, users and requirements**

Demonstration of understanding and learning in business processes, business requirements and constraints, user requirements and usability

Project Management

❑ **Initiating an IT project within a specific business environment**

The Proposal and PID documents

❑ **Project planning**

The Proposal and PID documents, project plan.

❑ **Presenting interim results**

The Progress Report and Demo Presentation

❑ **Report writing and referencing**

All components reports writing, referencing, balanced use of primary and/or secondary research data to draw arguments and justification

❑ **Project tasks breakdown and tracking the progress**

Demonstration the understanding of all relevant project components and deliverables, their interdependencies, timing and critical paths Demonstration of work carried out throughout the year with evident deliverable produced and recorded

Requirements for the Project Initiation Document, Progress report and the Final Report to be well structured:

- ✓ written using the correct style, font size, page layout, sectioning etc;
- ✓ written using the correct Harvard or other recognised referencing method;
- ✓ written in the third person, remember the project is not a chronological story, or a diary of events. Avoid using informal language, jargon terms, using I and me statements. Sentences must be complete using formal language.

Make sure you keep records of quotes etc. and correctly reference, using a recognised method, any material that you use. It is likely that the project will draw on modules that you have studied in the past and what you find out will be critically viewed in the light of your studies to date and what others have achieved using the techniques you have applied. It is essential that you do not try to extend a piece of coursework that was used in the assessment of one of the modules.

The start of your project is identifying a topic that interests you. During the first two weeks of the semester I there will be an opportunity provided for you to help you to begin the process of deciding on a topic.

You may approach lecturers and tutors to seek advice and to ask if they are prepared to supervise your project and mention it in your Project Application Form, though we cannot guarantee your first choice of supervisor.

The purpose of the Project Application Form is to enable a suitable supervisor to be allocated. The supervisor will help you to improve/modify this initial document and to guide you on the PID.

Submission of the Project Application Form

At this stage you may be required to revise your topic area as you may not work in the same area as another current or previous student. The earlier you submit your form, the more likely you are to be able to work in your first choice area and to be allocated your first choice Supervisor (this will be communicated to you via the Module Leader by email). Project Application Form must be submitted no later than **27 September 2024, Friday** to Google form (Form will be emailed by Module Leader).

If you submit your form late, notwithstanding MCs, you may have to change your area of interest to that of the available staff or change your topic because two students cannot have the same project. If there are two students with the same topic, the one who submitted late will have to change.

2.2. The Project Initiation Document

(5% of overall mark)

The main purpose of the Project Initiation Document (PID) is to define the scope and objectives of your project and your plan of work for the remainder of the project.

If you work on a topic which is too big or too small, or you work on a problem without having defined what it is you are trying to achieve, or if you set out on the equivalent of three month's work with no mechanism for monitoring and controlling progress, then you are likely to fail the project. This is why the PID is important.

The PID will also contain some information to help us in the administration of projects. As a minimum it should contain the information listed in the next section, without which your project cannot be approved.

Note that there is a great deal of groundwork to be done before you can complete your PID. Apart from the initial effort involved in finding a suitable project you will also have to do some preliminary investigation into the problem and consider carefully the most appropriate approach to take.

Your preliminary investigation will typically involve some fact finding, business analysis and systems analysis techniques. This initial high level investigation will leave you with a clearer understanding of how you should tackle the rest of the project.

You will then proceed to describe your approach and produce a plan of work. Your description of the approach should detail all the activities which are to be undertaken together with a breakdown of all products to be produced. You must also offer some justification for taking the approach that you describe. Your plan will give an approximate schedule for the activities described in the approach, together with deadlines for the completion of products.

There is a lot of work to do in producing a good PID and as a guide you can expect to spend about 30 hours on it i.e. 10% of the total project time. It is not something that you can do the week before the deadline.

The Project Initiation Document Structure and Contents

You are advised to read Weaver's "Success in Your Project – A guide to student system development projects. Chapter 5 Setting up your Project - includes a very good example of a PID which covers all of the necessary section without waffling. This chapter will enable you to write a good waffle free PID, it is aimed primarily at computer science students. However, you can adapt it to suit the learning outcomes of the Business Information Systems project.

The PID should be about FIVE pages long consisting of the following sections.

1. **Title Page**
   Project title
   Your course
   Your name (***not your student ID***)
   Your email address,
   Your Supervisor's name (if known)

2. **Contents Page**

Sections outline numbered with right aligned page numbers (see contents page).

Try to avoid more than two outline levels. 1.1 is reasonable 1.1.1 is not really necessary.

3. **Project rationale:**

You should describe your suggested topic by specifying briefly

- ***WHAT*** is the main area of investigation/research?
- ***WHAT*** problems and issues are relevant to the investigation/research?
- ***WHAT*** project topics may emerge as a result of the investigation and research?

This part should be summarised in a brief ***statement of intent***, which should ideally be not more than 500 words.

A few paragraphs outlining the background to your project and the names of any external clients (if any). Provide an overall aim for the project, this is usually quite broad and it is expressed in terms of the type of project.

Justification:

Justify your choice of project in terms of the learning outcomes for the Project.

You should clearly state ***WHY*** you have chosen the particular topic specified. This may be elaborated through the following:

- **Motivation for the project**: WHY do you want to do this particular project?

  Not from your personal perspective, but rather from academic (demonstration of your key knowledge and experience, to solve business problems, to find new/different/better solutions for an existing problem and etc.)

- **Contribution of the project**: WHY is your work useful? WHO could benefit from your project?

  Here talk a little bit about your users, what they look like, why would they use the product
- **Related work**: WHO else has done the similar work? HOW is your work different/similar from/to these related works?

  You can write a little bit about the competitors you have or similar products which exist on the local and/or international market. Product review should not be on functionality detail level, but rather user/market/problem level.

This part can also include your personal motivation and/or interest and should ideally be not more than 500 words.

4. Objectives:

These are very important as they are the points against which your project will be judged. The objectives should conform to the SMART acronym: ***S***pecific, ***M***easurable, ***A***chievable, ***R***elevant and ***T***imely.
Objectives can be formulated around (recommended to have up to three objectives per academic, system/IT and personal categories):

- system deliverables, components and functionality
- key business requirements
- methods and results
- particular theories or techniques that will be applied/tested/explored

Each objective should begin with the word 'To' and be concisely phrased so that success in meeting the objective can be easily determined.

Example: these are measurable, concise and can be seen as either succeeding or failing: To develop a system for the University of Life that will keep a record of each students' marks. To design a web based application that will provide data entry and retrieval pages for the University of Life's database system.

Example: these are too vague, un-measurable and cannot be seen to succeed or fail: To improve the efficiency of the University of Life. To develop a user friendly system for the University of Life.

5. Scope and deliverables

We need to have an idea of the type and size of the problem that you will be working on. The supervisor will try to give you advice on the size and scope of your project but you can help us by doing some preliminary work. For instance - for the typical project undertaken on this degree - you might develop a business activity model and a logical data model, thus identifying the area of the business which is the focus for your study, the type of application you will be

developing and the data involved. These products will be overview models: by definition they will not be complete but without them it is difficult for us to judge the suitability of your project. A good practice is to derive the scope using work breakdown structure.
This section should also answer the question: what products will you deliver? (cross referenced to the Project Objectives)

6. Limitations

The major constraint that all project students work under is the need to complete the project by a specific deadline. This means that often you will have to restrict the scope of the project to make the deadline a realistic possibility. You should say if there are important requirements that you will be ignoring (or another way of looking at this: important simplifying assumptions that you will be making) in order to make the project manageable from the BSc point of view.

7. Methodology, approach and resources

This section should answer the following questions:

- How are you going to do your fact finding, analysis and design? Also in terms of research (primary/secondary data usage)
- What tools will you be using? Includes both tools for development and research tools
- Why is your suggested approach suitable? Here compare and contrast between the options

Resources

Description of the software tools/languages/environments to be used during the project, if they are known at this stage.

It should be obvious that some sections will require a great deal of thought and work to complete. It is fairly easy to write in a general way about your project, but much more taxing to write in detail about the project itself.

You should not see the meeting with your provisional Supervisor and the handing in of the PID at the beginning of the semester as the start of the project. It is vital at this stage that you are clear in your own mind exactly what your chosen topic entails. Many later problems will be averted if time is spent at this stage clarifying the exact nature of your project, formulating your ideas and objectives, approach and strategy.

8. Project Plans

The project plan specifies what should be delivered and when. A good plan will tell you and your supervisor what work you should be doing on your project in any given week. Obviously the plan must take into account your other commitments on the course, at work and at home. Use a Gannt chart of another method to clearly outline when you will complete the work. A good plan is:

- Clear to read
- Realistic – allowing enough time for those parts of the research that always take longer than you plan

- Detailed – showing evidence of thought about what your research will involve.
- Effective - your plan should reflect development lifecycle in such a way to have around 60 to 70% of functionality developed by the Progress report milestone.

Assessment Criteria

PID section	Criteria	Weighting
Project rationale	Clarity of explanation of the context of the project Showing clear business/product/case rationale, its usefulness and awareness of similar products	30%
Objectives	SMART Specific, measurable, achievable, relevant and timely	10%
Methodology, approach and resources	Approach should be suitable and show how student will carry out the project (fact finding, analysis, design, research) What resources will be needed to carry out the project?	20%
Scope and deliverables	Showing the type and size of the problem Deliverables are what will be the product (best if cross referenced to the objectives)	20%
Limitations	Does the student show awareness of how they will need to restrict their project given the time constraints?	10%
Plan for completion	Plan for completion Is there a detailed and realistic plan for completing?	10%

Section	Mark	Mark description
Project rationale - 30%	0-29	Project is defined, but limited and not critically evaluated. Context of the project environment and rationale is very general and not backed up with research and no evidence of initial literature review. Project justification is not linked to the module learning outcomes. Customer or target audience is not defined or unclear. Competitor work, contribution and motivation for the project is poorly or not defined. There are some sloppy mistakes in language, style and referencing
	30-49	Project is defined, but could be done in more detail and more critically. Context of the project environment and rationale is linked with research and initial literature review, but with limited number of sources. Project justification is not clearly linked to the module learning outcomes. Customer is identified, but no clear understanding of the target group. Some competitor works are mentioned, contribution and motivation for the project is given but not justified. Section is present but struggled a lot with the language, references and academic style.
	50-69	Project is clearly defined, including definitions of industry, problems and issues. Context of the project environment and rationale is linked with research and initial literature review with substantial number of resources. Project justification

		is linked to the module learning outcomes covering the majority of them. Customer is identified target group is clearly determined. Major competitor works are mentioned, contribution and motivation for the project discussed clearly stating WHY. Section is present without language inaccuracies with proper references in good academic style
	70-100	Project is completely defined, including area of investigation, definition of industry, problems and issues in detail and critically analysed. Context of the project environment and rationale is linked with research and initial literature review with substantial number of resources which are valid, relevant and up to date. Project justification is completely linked to the module learning outcomes covering all of them. Customer is identified, the target group is clearly determined, targetization is in detail and well justified. Major competitor works are mentioned in detail and relevant, critical evaluation with current project is provided, contribution and motivation for the project discussed clearly stating WHY, covering specific benefits it brings and linked to the industry analysis. Section is presented in a clear and sophisticated language with proper and consistent references in excellent academic style
Objectives -10%	0-29	Objectives are there but do not follow SMART criteria. Objectives are limited and not properly categorised. There are some sloppy mistakes in language and style
	30-49	Objectives are defined, some of them do not comply with SMART criteria. It is difficult to judge results based on formed objectives. Do not correlate with module learning outcomes. Section is presented but struggled a lot with the language and academic style
	50-69	All objectives start with TO, written clearly and the result can be judged upon. Most of the objectives follow SMART criteria and correlate with module learning outcomes. Section is presented without language inaccuracies with proper references in good academic style
	70-100	All objectives start with TO, written clearly and concisely and results can be directly evaluated. All objectives follow SMART criteria and correlate module learning outcomes, equally representing Business, Computing and Project Management content. Section is presented in a clear and sophisticated language and in excellent academic style
Methodology, approach and resources - 20%	0-29	Approach and methodology stated either unclear and incomplete or absent. Resources are not complete and do not support project nature. There are some sloppy mistakes in language, referencing and style
	30-49	Approach and methodology described, but incomplete and lack justification. Fact-finding and requirement definition approach is not clear. Methodology is inappropriate or not clearly stated. Resources identified and planned, but are scarce and not cover all aspects of project nature. Section is present but struggled a lot with the language, academic style and referencing
	50-69	Approach, methodology and lifecycle described in details, including fact-finding and requirement definition. Some justification for methodology is provided and linked to the research, but with limited number of resources. Resources are defined clearly with overview of technology stack, as well as books, articles and publications which are relevant. Section is presented without language inaccuracies with proper references in good academic style.
	70-100	Approach, methodology and lifecycle defined in details, including both development and research areas. Systems analysis and logical design is clearly defined and well justified. Justification for the methodology is provided,

		critical evaluation is evident and backed up with a substantial number of resources which are valid, relevant and up to date. Resources cover all aspects of the project including both business and technological parts. Section is presented in a clear and sophisticated language with proper and consistent references in excellent academic style
Scope and deliverables - 20%	0-29	Scope is not fully covered. The section does not provide a full view of what will be covered by the project. Scope does not fit the requirements of Final Project. Section is out of point.
	30-49	Scope is partially covered, but with limited level of details. Only general points covered as well as high-level deliverables. Overall, lack of details.
	50-69	Scope is covered with some level of detail. All the critical features/deliverables are considered, but there is a lack of details. Some aspects of projects are not covered.
	70-100	Excellent coverage of scope and deliverables. Section provides a clear and detailed vision of what will be implemented within the project. All aspects of the project are covered with a high level of details.
Limitations - 10%	0-29	Students do not show awareness of limitations of the project. Student does not provide any plans how to restrict the project to fit the constraints. Section is out of point. Contingency plan is not realistic.
	30-49	Some limitations provided. Some restrictions are given to project scope to fit identified constraints. Overall, the contingency plan is limited and lacks details. Contingency plan is less likely realistic.
	50-69	Limitations are covered with proper contingency plan and restrictions to scope. At least three main areas (time, quality, resources) of limitations are well discussed. The section can be enhanced in terms of discussion of limitations and/or restrictions to project scope.
	70-100	Section discusses all possible limitations of the project with high level of detail. Students propose excellent plans on how to mitigate the limitations. Students show excellent rationale on how to restrict the project to fit the constraints.
Plan for completion - 10%	0-29	Plan is not provided at all or the plan is very general. There is no clear flow of work to be done. Plan is generic and does not cover the details. Plan is not realistic.
	30-49	Overall, a general plan is provided. There is some flow of work to be done, however the plan does not provide sophisticated level of details. Plan is less likely realistic.
	50-69	Plan is well prepared. There is clear flow and a good level of detail. Plan provides a clear view of what should be done and when are the deadlines for each task. Plan requires minor improvement in terms of details. Plan is realistic. Plan does not consider other academic routines of the student.
	70-100	Excellent plan prepared. Extremely high level of details. The flow is clear, all the deadlines set are clear and valid. Students consider other academic routines that could affect project execution. Plan is realistic and can be used for tracking and management of project execution.

Submission of Project Initiation Document

PID must be submitted to the WIUT Learning Board by **Monday, 21st October 2024 11.59pm**

Your research proposal will be assessed by your Supervisor and one other anonymous marker and your Supervisor will give you feedback. Once you have received feedback it is important that you make progress over the rest of the semester and during the mid-semester break. At this stage you should be collecting the data, whether it is primary or secondary data that you are using. At this stage it is important to write your ideas down as they come to you and start making analysis of the data while it is fresh in your mind. You can also be developing your literature review further (ensure you keep a note of references). Writing now will save you double the work or remembering and writing when it comes to writing your final project. Keep in touch with your supervisor!

2.3. Progress Report and Demo presentation

(15% of overall mark)

Purpose

In the business world, people responsible for any sizable project are expected to report on the progress of the report at regular intervals to identify any serious errors before they become unmanageable.

Preparation

By the beginning of your second semester, you should have made some improvements to your literature review and started to collect and analyse your data. You will therefore have enough material to prepare a demo presentation, accompanied by a written account, describing what has been achieved in the first semester and, if necessary, supplying a revised plan of work for the remainder of the academic year. This constitutes the Project Progress Report & Demo Presentation. You will be required to deliver the product demo presentation by recording a video. It is a good progress to have **50-70%** of your product ready by that time.

Progress Report

The progress report should be around 2500 words (or 10 pages including diagrams) and is made up of the following sections:

1. **Cover page** which includes:

✓ your name (***not your student ID***)
✓ regular contact email address
✓ course title
✓ name of Supervisor
✓ project title

2. Relevant **problem analysis** which includes some or all of the following:

- Strategic
- Sector
- Industry
- SWOT
- PEST(L/E)
- Demand
- Competitor
- Impact
- User

Problem analysis should reflect research results as well (primary/secondary research accomplished so far). You should concentrate on clearly explaining what you found in your data collection.

You should show clearly the business logic behind your project.

3. An **IT strategy** to ensure the project will deliver a solution that supports the raised problem (answers research question and fulfills the objectives)

This should build on what you wrote in your PID and is a summary of how you will solve the business problem and/or business activity and/or solves identified problems and/or has unique features to fill the need gap.

Development results should be reflected in IT strategy as well. Percent of the development work done so far and what part of your system is ready, any changes to scope or functionality applied.

4. **Critical self-evaluation**: discuss changes you have made to your original proposal and why, referring to how this will affect the way you approach the remainder of the project

Here you should be very honest about changes you have made realising that hardly any research projects go exactly to plan, and that the best evolve and change as they progress. You can comment on issues related to how you have had to change your PID based on feedback or attempts to carry out some of the tasks, changes in your thinking about the most relevant methodology, and how initial results are affecting the way you are carrying out the project.

5. **Revised schedule of work for the project**.

Revised schedule should clearly indicate which tasks of the initial plan are completed and also reflect the results of the project achieved so far.

6. Draft versions of any **design documents** these may include:

- UML/Case diagrams
- Models (logical product model)
- Prototypes
- ER of database
- Data flow diagrams
- Interface prototypes
- Questionnaire/interview questions (all other research instruments)
- Summary of requirements
- Summary of product features

7. **Demo presentation / video**[1]

   Option 1: You will be required to demonstrate your product in a form of short demo video. Prepare your software demo in a way to explain how the product works and

[1] Demo planning might be changed in accordance with Covid-19 situation in Uzbekistan. Will be decided later if held offline - Demo day or through demo video submission

how the process is from the very first user interaction with the product.

Demo video should be no longer than 10 minutes and include following:

- Brief information about the project - purpose, users, project type
- How prototype works and what functionality developed so far
- Backend including your database tables, your software structure in IDE/framework

Option 2: In case of offline Demo-day event - Poster presentation:
The poster presentation should be around 6 – 9 slides of A4 paper or a printed A0. These slides provide an overview of your project. The slides should be similar in content to the progress report but are presented in a more stimulating and visual format. The people viewing your slides will not be in the same position as your supervisor therefore, you need to provide stimulating slides that prompt people to ask questions relating to your project and your progress.

The Poster Event involves all students. You will stand by your poster and be prepared to explain what your poster contains and to answer related questions posed by staff. This will allow you to receive additional feedback. Your ability to clearly explain the nature of your project, and respond to questions and comments will be assessed by other members of staff apart from your supervisor. Poster event also hosts a number of industry professionals and specialists joining from the field.

You will be required to demonstrate your product on a laptop/mobile the prototype you have. Prepare your software demo in a way to explain how the product works and how is the process from the very first user interaction with the product. You can also demonstrate your backend including your database tables, your software structure in IDE/framework.

Module leader will communicate in addition which of the options 1 or 2 to be followed during the Academic year 2024-25.

The Progress Report should be submitted to the Intranet **Friday 24 January, 2025, 11:59pm**. You will receive feedback from your Supervisor and you may modify your work in progress for your final project.

Assessment Criteria

The progress report and demo presentation are considered as one assessment component and together make up 15% of your overall module mark. The assessment criteria and weightings are as follows:

Sections	Criteria	Weighting
Problem analysis	Ability to analyse the problem from a business/ need perspective	15%
IT strategy	Appropriateness of IT strategy for solving the business problem	15%
Critical self- evaluation	Critical self-evaluation of work undertaken - student should demonstrate evidence of a capability of reflecting on the way in which the research is progressing	5%
Revised schedule of work	Clarify and appropriateness of revised schedule of work for the project	10%
Design documents	Accuracy of draft versions of design documents	15%
Demo Presentation (video)	Clarity and extent of results achieved so far and clearness of conclusions based on interim results achieved. Results of the development work, demo readiness. Demo of the project and professional level of debate: ' Demonstration of the product – explanation of its functionality and features ' Clarity of initial exposition of project objectives and methodology.	40%

Section	Mark	Mark description
Problem analysis - 15%	0-29	Problem analysis is limited, not relevant or incomplete. Tools used for problem analysis do not correlate with project nature and business context. No evidence of research results. There are some sloppy mistakes in language, style and referencing
	30-49	Problem analysis is presented, but could be done in more details and more critically. Competitor analysis is presented, but limited and understanding of overall industry and players is not demonstrated. Tools used for problem analysis are not backed up with sufficient research, but limited number of sources. Evidence of research results are unclear or incomplete. Section is present but struggled a lot with the language, references and academic style.
	50-69	Problem analysis is detailed including aspects of business perspective, industry analysis and competition. Critical overview is backed up with sufficient research, backed up with relevant sources. Analysis tools used properly, discussing major aspects of industry and its environment. Clear research results are demonstrated. Section is presented without language inaccuracies with proper references in good academic style
	70-100	Problem analysis is thorough, detailed and relevant, including an overview of the business, industry and competition. Critical discussion is backed up with thorough research with relevant and up to date sources. Analysis tools are appropriate and cover all aspects of the research area. Outstanding research

		results, evidence of accomplished business research. Section is presented in a clear and sophisticated language with proper and consistent references in excellent academic style.
IT strategy -15%	0-29	IT strategy is limited, not relevant or incomplete. Methodology is not justified or followed, no evidence of work accomplished throughout the project lifecycle. Technology stack is not justified or used ineffectively, solution is inappropriate for a set business activity/ project idea.There are some sloppy mistakes in language, style and referencing, no evidence of research and fact finding. Results achieved so far are not presented, or unclear and insufficient.The section is limited, IT strategy is briefly covered. Section is mostly description and lacks analysis and details. Software tools are not properly listed and reationalized. Methodology selected is not proper for the project and/or does not have supporting background. No information how methodology was applied to current project. There are some sloppy mistakes in language, style and referencing
	30-49	IT strategy is presented, but not critically evaluated and justified. Methodology is justified merely, some evidence of accomplished work, but not reflecting chosen lifecycle. Technology stack is described but not strongly justified, solution meets the set of business activity/project idea, but not highly effective. Section is present but struggled a lot with the language, references and academic style. There is insignificant progress on software side. The section lacks details and analysis of hardware/software/methodology. Section is mostly description without analysis and/or supporting rationale. Hardware/software is somehow listed but not analysed and justified. Methodology is defined but there is no evidence of application of methodology to the project. Section is presented but struggled a lot with the language, references and academic style.
	50-69	All hardware/software used provided with some limitation in justification. Methodology is defined; the application of methodology to the project (development process) is clearly defined. Overall, the section is good but lacks analysis and justification with supporting background. Section is presented without language inaccuracies with proper references in good academic style
	70-100	The section contains in-depth description and analysis of selected methodology as well as description of how it was applied to current project (development process defined). All software/hardware tools are listed and properly rationalized. Strong justification of selected hardware/software/methodology. The section has excellent backup with thorough research with relevant and up to date sources. Section is presented in a clear and sophisticated language with proper and consistent references in excellent academic style.
Critical self-evaluation- 5%	0-29	Section is absent. Section is descriptive and does not contain any evaluation. There are some sloppy mistakes in language, style and referencing
	30-49	Section is limited with evaluation and mostly descriptive. Section is presented but struggled a lot with the language, references and academic style.
	50-69	Overall good critical self-evaluation. Overall, student has elaborated the problems appeared and cause-effect details, but there is a lack of details and/or realism. Section is presented without language inaccuracies with proper references in good academic style
	70-100	Excellent critical evaluation of performance. Student clearly defines the difficulties, causes and effects and how they could have been avoided. Student is rather self-critical but realistic. . Student properly reflects on the feedback provided for PID. Section is presented in a clear and sophisticated language with proper and consistent references in excellent academic style.

Revised schedule of work - 10%	0-29	Schedule is too general. Scheduled was not revised/improved. Revised schedule is not realistic. Completed tasks are not highlighted.
	30-49	Scheduled was not properly revised/improved. Completed tasks are not highlighted. Schedule lacks details.
	50-69	Good schedule present. Comments for initial schedule are taken into consideration. Completed tasks are indicated. Schedule has good level of details, however, could be improved.
	70-100	Excellent schedule present. Very high level of detail. All task statuses (what is done, what is in progress, what is not done) are indicated. Deadlines are clear. Plan allows project completion on time.
Design documents - 15%	0-29	Almost no design documents present. The documents have many inaccuracies and mistakes. Design documents does not cover system architecture.
	30-49	Some design documents present. The documents contain some inaccuracies and mistakes. Overall, the system architecture is somehow covered..
	50-69	Most of the design documents present. The documents clearly overview the system architecture. The documents contain few mistakes or inaccuracies.
	70-100	All possible design documents (ER, Activity, Class, Use Case, Data Flow, diagrams and high/low fidelity prototypes are present) are prepared without any inaccuracies. All documents explicitly shows system design.
Demo Presentation - 40%	0-29	No submission of video. Demo does not provide an overview of the project. The demo is limited and covered less than 30% of functionality planned to develop.
	30-49	The demo is limited and covered less than 50% of functionality planned to develop.
	50-69	Overall demo is good. Demo is functioning but does not cover 70% of functionality planned to develop.
	70-100	The student shows that he/she is on track with the plan. Demo is high fidelity and working with no bugs. Student is able to present the demo in excellent manner.Demo covers at least 70% of functionality planned to develop

2.4. Final Report

(80% of overall mark)

Purpose

The final project is a substantial piece of work of 8,000 to 10,000 words (excluding references, bibliography, appendices, tables and figures). It provides a demonstration of your critical awareness of a relevant body of theory and work in the field, your ability to demonstrate a structured progression of ideas, and to prepare a cogent analysis based on clearly articulated evidence.

Preparation

It is recommended that you give your supervisor a first draft of your project (in the format they request – could be printed) a month before the deadline to allow time for your supervisor to look at it and give you some general feedback on what areas might need improving. The supervisor is not expected to comment on every aspect or every detail, nor continually review amendments, as the final project should be your work and not theirs. They are not expected to comment on the possible mark your work will merit.

Do not expect your Supervisor to comment on any work submitted within three weeks of the final submission date, as there is insufficient time for you to gain any benefit from such last minute feedback.

If you have followed the guidelines, you should not have to make any major revisions to your work at this late stage. You must remember that printing and binding will take a number of days and allow sufficient time for this.

Keep back up copies of all material. There is a law of computing which says it is only material not backed up which is on the disk which gets corrupted or misplaced. Computer and printer malfunction are not allowable for Extenuating Circumstances.

Requirements

Your final project should be word processed in 12 point font with one and a half spacing for the main body of text and a left-hand margin of 4cms to allow for binding (you are responsible for binding the project – there are a number of services available around the university). The word limit is 10,000 words.

The suggested structure of your project (*and suggested word allocation*) depends on the type of project, but for one involving primary data collection the structure below can serve as a guide. However, if you project involves secondary data, then the structure would be slightly different – with more space for a literature review or more in the results and analysis part. So don't follow this slavishly. Use your judgment so that your report is balanced, clear in structure

and easy to read.

The following is a guide to the structure:

1. **Title page**

this should include:

- your name (***not your student ID***)
- regular contact email address
- course title
- name of Supervisor
- title of the project
  a statement to the effect: ““A project undertaken as part of BSc (Hons) Business Information Systems Degree, Westminster International University in Tashkent"
- date of submission. ALL of the above must be positioned so it is visible through the cut-out section in the front cover.

2. **Acknowledgements**

This is optional, but does provide you with an opportunity to thank those who have assisted in your research - for example, companies which have been of assistance. Notes that there is no correlation between your mark and the amount of lavish praise for your Supervisor!

3. **Contents page with page numbers for the sections**

The contents page should include reference to all the elements in this list. Depending on the contents, if appropriate, there should be a list of pictures, tables and figures. It must help people to find their way around your project and will demonstrate that you are a logical thinker.

4. **Abstract**

This should be of no more than two sides (max 400 words) which concisely explains your topic area, why your topic area is important and worth studying, your investigation and methods, your main conclusions, the implications of your conclusions.

5. **Introduction**

This should give the purpose and scope of your topic area. It should include a full statement of your objectives and if you have used an organization as a basis of an application you should include some background detail, case or problem overview.

6. **Literature review**

This extends your discussion of other studies conducted in this area and examines some of the theoretical concepts posed by previous studies. It is not a survey of all the literature ever written on your topic so try to avoid a shopping list of previous studies. It is not written to show that you have read around your subject. Background literature may (if you are positive it will add value) be described in only one sentence. Whilst you need to conduct a survey of all

relevant literature early on, you should write up your actual literature review after you have completed your analysis so you do identify and express the linkages. It should be a critical evaluation of those previous studies which relate to your project. Some researchers take the view that there should not be a separate literature review chapter and that you may refer to the literature selectively as appropriate throughout the project. Such a practice is less common so check it out with your Supervisor first. Literature review can be structured and combined around particular aspects of the researched topic.

7. Methodology business

In a qualitative study, you need to explain your theoretical assumptions, the strategy you adopted and how you can generalize from your analysis. A quantitative study includes detailed information on the investigations undertaken: precise definition of target population; sampling frame; sample size; areas selected for review; research instrument (e.g. questionnaire, focus group discussion, etc); sampling procedure; response rates. It should provide sufficient detail for the reader to assess the reliability and validity of your methods. You can put examples of research instruments in your appendix. A good methodology is based on strong justification of the approach chosen.

8. Methodology computing

The report should give full details of the scope and objectives of your project. The analysis stage should include (where appropriate): analysis of fact-finding, proposed analysis, consideration of alternatives, justification for a preferred solution. In the development of a system you are required to justify the selection of the various methods/techniques used. It is important that the chosen method/techniques are identified and they are relevant to the project domain.

9. Results

Results are what you found out – you will interpret them in your conclusions, in this section you should concentrate on clearly explaining what you found in your data collection. It is suggested that you develop a storyline which gives structure to the section. This could be built around the research objectives that you set yourself at the beginning.

10. Conclusions

This is where you interpret the results, reaching conclusions that demonstrate that you have insight into the issue and that relate to the literature that you have reviewed. Probably the best structure for this section is to clearly relate it to the results – for every result there must be a conclusion.

11. Final chapter

This should be an objective (i.e. honest) assessment of any possible bias in your project and a critical evaluation of the work you have undertaken including any new work appearing since you began, discussion on anything you would now do differently, any implications for policy and practice, limitations of your study and further research or development of your software that

might follow on from your findings.

12. References and bibliography

In reading your report, we should clearly know what your own original work is and what is other people's work that you have summarised or quoted. It is important to use consistent and recognized referencing style such as the Harvard style (see appendix) or footnoting – but be consistent. It is to be expected that a literature based project will have more references than one in which primary data is used. Referencing is not a matter of how many references but rather the appropriateness of the references and the way that they have been used to support the argument. In addition to references (which is everything quoted in the report) you can also produce a Bibliography which is an alphabetic list of everything you may have read which has informed your thinking but which you have not cited. Your reference list is of greater importance than your Bibliography list as the latter is often subject to 'padding' (i.e. including books you haven't read!)

Build up the bibliography as you go along. Remember to reference the work properly and keep the references in alphabetical order on file. Do not be fooled into including lots of references because they look good - only use those, which are relevant to the underpinning knowledge base of your work or support your argument. Do not quote references you have found in a book without reading them first - you are required to take a viva and could be asked to explain a particular reference. It is considered as plagiarism if referenced source is not found in reference list and/or do not exist.

13. Appendices

These may include code, test plans, diagrams, evidence of system design, research instruments, summary of primary research data results, statistical analyses, background detail, prototypes etc. Only include what is of major relevance and it must be referenced in the text.

Additional notes

Screenshots, Tables, diagrams, graphs, etc. take a long while to prepare but can make a great deal of difference to the look of the final project. But remember that it is the quality of your thoughts which is being assessed and not your artistic ability! You will have to produce two copies of the final project and you should remember this in your choice of how you reproduce diagrams etc.

Keep back-up copies of all material. There is a law of computing which says it is only material not backed up, which gets corrupted or misplaced. Computer malfunction is not allowable for Extenuating Circumstances.

You must submit the final project by **Friday 4th of April 2025.** An electronic copy to be submitted to the university Intranet.

Additional email will follow-up on submission by your module leader.

Assessment of a project

There is no standard formula for allocation of marks for the final projects as it depends on the nature of the project and the type of subject area, however the following should be a guide to you in what will be looked for in the allocation of marks for the project.

- ✓ critical analysis of a relevant body of theory, research and practice in the field
- ✓ ability to demonstrate a structured development of intellectual ideas
- ✓ preparation of a cogent analysis based on clearly articulated evidence
- ✓ coherence of conclusions and recommendations linked to analysis
- ✓ technical issues of structure, referencing and presentation
- ✓ degree of difficulty of the project

In addition the way in which you manage your time during the year will also be taken into consideration – on the basis of your learning contracts and a log of meetings with the supervisor.

Viva Voce

You will be required to attend individually a viva on your work. You will not be required to deliver a presentation. The viva panel will be your supervisor and the second marker. The questions will relate to the content and implications of your project.

Your viva will be scheduled at a time suitable to the supervisor and the second marker. Normally this will be about two weeks after submission. Due regard will be given, whenever practicable, to your examination schedule. However, it may be necessary for you to attend on the same day as an examination.

Assessment Criteria

Sections	Criteria	Weighting
Case overview	Is the business/problem-solution logic behind the project well explained? Clearness of problem analysis, setting SMART objectives, covering learning outcomes within project scope	10%
Design/ methodology	Both business and IT methodology – the balance will depend on the particular focus of the project. However, if business & IT methodology is not balanced equally, major part should be noticeably and significantly more focused, detailed, justified. Is there a clear understanding of methodology/framework, and is it justified? Was there proper fact-finding and	40%

	requirements analysis?	
Implementation	The mark for this is given after the viva, though takes into account what is included in the written project Is there a systematic implementation of the design, or where there are differences is this justified? What are results and key takeaways of primary/secondary research? How it influenced problem domain? Have the relevant tools and techniques been used properly? What is the quality of the coding (partly assessed in viva)? Has there been appropriate testing carried out?	40%
Reflection of completeness/ usefulness	Does student show clear awareness of the limitations of project and areas for future development? Does the student show good insight into the issues of managing a project? What are the main lessons learned and experience takeaways from individual project management experience?	5%
Time & project management	How effectively student used the learning contract with supervisor How effectively project was planned and delivered per schedule	5%

Section	Mark	Mark description
Case overview - 10%	0-29	Case overview is limited, not relevant, incomplete or missed. Business logic behind the project is not clearly explained nor explored. No evidence of research. There are some sloppy mistakes in language, style and referencing
	30-49	Case overview is limited, not relevant or incomplete. Business logic behind the project is not clearly explained, limited presentation of scope and objectives. Purpose and the value of the project is presented but not detailed. Evidence of research are unclear or incomplete. Section is present but struggled a lot with the language, references and academic style.
	50-69	Case overview is presented. Business logic is clear, scope is described in details and objectives follow SMART criteria. Purpose and value of the project presented in detail and fully. Some insights are presented of the customer of the project or otherwise project is justified as a startup. Justification is backed up with research Section is presented without language inaccuracies with proper references in good academic style
	70-100	Case overview is extensive, detailed and well justified. Strong business logic, scope is detailed and challenging. Objectives are complete and follow SMART criteria. Purpose and value of the project strongly presented, well justified. Customer and end user are explained in detail, as well as startup justification followed where applicable. Extensive research is evident. Section is presented in a clear and sophisticated language with proper and consistent references in excellent academic style.
Design/ methodology - 40%	0-29	Methodologies business and computing are limited, incomplete, unclear, not justified or missing. No evidence of research. There are some sloppy mistakes in language, style and referencing

	30-49	Methodologies are limited, not relevant or incomplete. Tools used for business research are inadequate or could be analysed in more detail. Computing methodology is not detailed, no clear evidence of fact-finding and logical design. Some evidence of research, but no critical analysis present. Section is present but struggled a lot with the language, references and academic style.
	50-69	Methodologies described in detail. Purposeful usage of tools, in market research and distinct primary and/or secondary research. Technologies used are justified, including lifecycle and technology stack. Appropriate usage of fact-finding, evidence of research and logical design. Section is presented without language inaccuracies with proper references in good academic style
	70-100	Methodologies well justified and critically evaluated. IT strategy is in detail, including methodology, technology stack and architecture. Used tools and in market research fully cover business side analysis. Primary and/or secondary research is well justified and alternatives are evaluated. Research validity, generalisability, ethics and reliability is analysed. Section is presented in a clear and sophisticated language with proper and consistent references in excellent academic style.
Implementation - 40%	0-29	Implementation and project results are not acceptable, incomplete or missing. Student did not attend VIVA Voce or failed to prove the individual development.
	30-49	Implementation and project results are limited. Technology, tools and techniques used are not effective. Poor quality of coding, no evidence of systematic testing carried out, limited or inadequate attention to the security and optimisation matters. Student attended the VIVA Voce, but failed to answer all the questions.
	50-69	Implementation and project results are adequate and sufficient. Technology, tools and techniques used are sufficient for the stated business project. Quality of coding is acceptable, there is an evidence of testing. Prototype security and code optimisation are taken into account. Student has attended the VIVA Voce and answered all the questions confidently.
	70-100	Implementation and project results are very strong, challenging and exceptional level of achievement is evident. Technology, tools and techniques used are highly effective, innovative and highly relevant to the business project defined. Scope of the development is exceptional and outstanding. Prototype is of a very high quality, integrated with security issues and code optimisation. Student has attended the VIVA Voce, answered all the questions and demonstrated substantially beyond what is considered reasonable for this stage.
Reflection of completeness/ usefulness - 5%	0-29	Project is incomplete. No evidence of reflection on results and conclusions. There are some sloppy mistakes in language, style and referencing
	30-49	Project is incomplete. Student reflection on limitations and self evaluation is limited. Report sections, references, evidence of data analysis and software modelling is incomplete or can be improved further. Section is present but struggled a lot with the language, references and academic style
	50-69	Project is complete. Student reflected on limitation of the project and its future development. Self-evaluation is critical, adequate and complete. Results are interpreted into clear conclusions. Report sections are complete, evidence of data analysis and software modelling are properly documented. Section is presented without language inaccuracies with proper references in good academic style
	70-100	Project is complete and challenging. Reflection on project limitations and critical

		self evaluation is in detail, appropriate and clear. Results are interpreted into clear conclusions. Project management issues outlined and addressed. Future development is discussed in detail and project scalability issues addressed. Report sections are complete, all research and analysis evidence included, software modelling progress is properly documented. Section is presented in a clear and sophisticated language with proper and consistent references in excellent academic style.
Time & project management - 5%	0-29	Poor time management. Project objectives are not managed and not met. No prototype demonstration at VIVA or errors occurred.
	30-49	Effectiveness of project management can be further improved. Project planning and management tools/techniques are missing or used inappropriately. No evidence of the continuous work throughout the year. No evidence of sufficient time allocated to the report. Demo is present at VIVA Voce, but with errors.
	50-69	Project management is effective. Project planning and management tools/techniques are used appropriately. There is evidence of continuous work throughout the year. Report is thoroughly written and proof-read. Demo demonstration at VIVA Voce is error free.
	70-100	Highly effective project and time management. Variety of project planning and management tools/techniques used effectively. There is evidence of continuous work throughout the year with remained and/or enhance development and research scope. Report is thoroughly written, proof-read with good structure and neat formatting. Demo demonstration at VIVA Voce is error free, there is an evidence of proper testing and fixing.

3. If you don’t pass the project

It is a requirement to pass the Major Project (6BUIS007C-n) in order to gain the BSc (Honours) Business Information Systems award.

If you gain a mark of between **30% and 39%** inclusive, you will probably be offered a **referral**. This is the opportunity to resubmit a revised version of your original project at the next assessment opportunity. If this revised work is of a pass standard or above, you will be awarded a **capped** mark of 40% for the project (equivalent to 2 modules at 40% in the calculation of your degree classification). Alternatively, you may elect to receive an Ordinary (or Pass) degree provided you have passed your taught modules.

If you gain a mark of between **0% and 29%** inclusive or if you have been given a re-assessment but still do not achieve a pass standard in your re-assessed project, you will have to repeat the module with attendance. This means you will have to prepare a new project from scratch and present all aspects of your new project (research proposal, progress report and final project) for assessment at the relevant points over the next two semesters. You may be liable for additional fees for the equivalent of two modules, as it is a double module. If this revised work is of a pass standard or above, you will be awarded a **capped** mark of 40% for the project (equivalent to 2 modules at 40% in the calculation of your degree classification). If you do not pass the repeat module, you will be excluded from the Honours degree course as you are only permitted to attempt any module twice. You will be awarded an Ordinary degree.

4. Appendixes

1. General guide to assessment
2. Copyright of the Project
3. Harvard System of Referencing

Appendix 1 - General guide to assessment

Mark%	*What does it mean*
0	Non submission or heavily plagiarized
1-20%	Misunderstood the point of the project, never really established clear objectives, work like a poor or extended piece of coursework.
21-30%	Some understanding/definition of objectives but a weak effort – comparable to a reasonable piece of coursework rather than 2 semesters work.
31-39%	Project is incomplete, requiring improvement in at least one major area: specification, research, analysis, design, implementation, evaluation. Weak application of the techniques. Almost complete but lacking sufficient elements of business or IT.
40-49%	Barely competent in the main areas mentioned above, critical analysis shows a lack of insight in the topic area. The IT artefact is weak. Project is complete but unchallenging or 'textbook'.
50-59%	Project is complete and the topic slightly more challenging. Competency in the main areas mentioned above, critical analysis shows some insight in the topic area. Business justification is fair and the IT artefact has some merit.
60-69%	Project is complete and the topic challenging. Competency in the main areas mentioned above, critical analysis shows a reasonable insight in the topic area. The business case is clear and the IT artefact sound.
70-79%	Project is complete and the topic very challenging. High degree of competency in the main areas mentioned above, critical analysis shows a high degree of insight in the topic area. A high understanding of the business sector for which the IT artifact is being developed. The artifact itself has been reasonably tested and meets the original objectives.
80-89%	Project is of large-scale and complete. Topic is challenging and innovative. All areas mentioned above are exposed and evidence of the initial research performed is demonstrated. Critical analysis demonstrates high degree of insight and research performed in topic area. A thorough understanding of business sector, its environment and risks for which IT artifact is being developed. The IT artefact itself meets original objectives, support business side with innovative solution and propose technically complex solution.
90+	Project is of significant challenging scale and complete. Topic is challenging and very innovative. All areas mentioned above are exposed and evidence of the significant initial research performed is demonstrated very well. Critical analysis demonstrates very high degree of insight and significant research performed in topic area. A thorough understanding of business sector, its environment, risks and costs for which IT artifact is being developed. The IT artefact itself meets original objectives, support business side fully with innovative solution and propose highly technically complex solution. IT artifact design reliability, risks, costs and scalability are considered

Appendix 2- Copyright of the project

Copyright of your project belongs to University of Westminster, UK, since it is the owner of the course that you are studying. This is standard practice for all projects at all universities. What this means in practise is that the University has the right to keep copies, including one in the library, but in nearly all cases will allow you to use your project in publications, or in other ways after you graduate. This is to protect the university from inappropriate publications rather than to exploit you! In other words, in most cases it makes little practical difference who holds copyright.

However, a few cases it is important to bear this in mind:

- When sources of your data are concerned about confidentiality, you must assume that others will be able to read your project, and so be careful to ensure anonymity such that those reading the project do not know who they are
- If you plan to commercially exploit your project (e.g. sell the software you have developed) you will need permission from the University
- If the company for whom you are conducting a project plans to sell the project to others, you will need to communicate to the company that they will need to negotiate with the University before doing so.
- If the company for whom you are conducting a project is concerned that the University will sell it to competitors, you can assure them that this is not a policy of the University. If the company is concerned then there could be some agreement in which, for example, the company has first option on the project.
- If legal action is taken on the basis of what you have written on the basis of what you have written in your project, the University will be involved in defending itself (i.e. you). This gives you protection, but also means you are responsible for ensuring you avoid anything libelous or otherwise unlawful actions.

If you have any concerns about how copyright issues will affect your project, then do speak to the module leader. However, remember that in 99% of cases it makes little practical difference.

Appendix 3 - Harvard Referencing System

Article or Book

When you refer to an article or book within the text of your report you should include just the surname(s) of the author(s) and the year of publication, for example:

> 'Bell (1999) has suggested that' or 'it has been suggested (Bell, 1999) that'.

If a work has more than one author, you should either list all the authors' surnames or, if there are more than two, use 'et al.', for example:

> 'Cadle and Yeates (2001)' and 'Saunders et al. (2003)'.

If you are referencing more than one work from the same author in the same year, you should distinguish between the two using a single letter suffix, and if you wish to refer to a specific page you should add the page number after the date:

> 'Dawson (2000a: 75)'.

For each article or book referred to in your report, you must then include a full entry in the list of references in your bibliography. The Harvard system format for a full book reference is:

> Surnames, forenames or initials of each author (year of publication) Full Title (edition), place of publication, publisher.

For example:

> Bell, J. (1999) Doing Your Research Project (3rd edition), Buckingham, Open University Press.
>
> Saunders, M., Lewis, P. and Thornhill, A. (2003) Research Methods for Business Students (3rd edition), Harlow, FT Prentice Hall.

The Harvard system format for a full journal article reference is:

> Surnames, forenames or initials of each author (year of publication) , Article title', Journal Title, Volume (issue), page numbers.

For example:

> Netril, J. (2002) 'Art of graph drawing', Journal of Graph Algorithms, 6(2), 31-147

Internet Referencing

If you have obtained a journal article or an electronic version of a book from an Internet site, you should add the Internet address (URL) and access date to the end of the reference, for

example:

Yin, J., Alvisi, G., Dahlin, M. and Iyengar, A. (2002) 'Engineering web cache consistency' ACM Transactions on Internet Technology, 2(3), 224-259. Available from http:/ /www .research.ibm.com/people/i/iyengar/toit02.pdf (10 January 2003).

If the article you are referring to has been published solely on the Internet, you should attempt to record as much information as you would collect for a printed article. In many cases journal volume and issue numbers will not exist, but you should attempt to record at least the following:

- Full names of the authors (this may be an organisation).
- Year of publication.
- Full title of article.
- Full name of on-line journal or website.
- Publisher or organisation responsible for maintaining the website, if different from author.
- Place of publication, if known.
- Internet address (URL) of article.
- Date of access.

  For example:

  DSDM Consortium (2002) 'The Underlying Principles' DSDM Website. Available from http://www.dsdm.org/en/about/principle.asp (accessed 7 January 2003)

Also refer to the reference guide:

https://www.westminster.ac.uk/sites/default/public-files/general-documents/Referencing%20Your%20Work%20booklet_06.1.pdf