

TRIP TRACK

REQUIREMENT ANALYSIS

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PROJECT DESCRIPTION

This should be a high-level overview of your project, suitable for a reader who isn't an expert in the topic area. This will be most useful for your marker, who might have no prior knowledge of the project. This first section should be relatively short and succinct, but make sure you answer the key question of what you will be doing on the project. You can add more detail in the later sections.

Project Description
[view longer description](#)

A++	A+	A	B	C	D	E+	E - F	G
Shows critical understanding of project idea and current relevant knowledge.	Shows critical understanding of project idea and current relevant knowledge.	Shows comprehensive understanding of project and current relevant knowledge, with some ability to put the work into context.	Shows good understanding of project idea and knowledge, with no major gaps or omissions (minor gaps or omissions may occur).	Conveys satisfactory understanding of project idea and background knowledge, with the ability to integrate information but lacking in depth or breadth.	Conveys general understanding of project idea and knowledge but very limited in depth or breadth.	Shows limited or fragmented understanding of project and knowledge, with some aspects displaying fundamental omissions.	Shows incomplete understanding of project and very limited range of knowledge, with numerous errors of interpretation.	Virtually no description

Trip Track is a mobile application designed to help travellers plan and document their travel experiences. The app provides a seamless way for users to log their travel activities, while also allowing them to capture their memories through photos and journal entries. The objective of Trip Track is to offer travellers a one-stop solution for planning, documenting and reliving their travels. The app aims to provide a user-friendly interface and powerful features that make it easy to capture travel experiences in real-time and keep them organised for future reference.

AIMS & OBJECTIVES

The aims of your project are broad statements of intent. In other words, what you expect to have achieved after completing the work. For example, *Create a platform that allows users to design their own board games*. Objectives are more measurable and include the steps needed to achieve the aims. For example, *Implement a game description language that encodes the rules for board games*.

There will usually be more objectives than aims. The difference between aims and objectives is not always easy to grasp, but objectives should be things that you can test. In the given example, the testing plan would ensure the game description language is robust and works properly. Your aims and objectives should be presented as bullet points to help readability.

AIMS:

- Create an easy-to-use platform that is a central hub for users' travels, including organising
- and documenting their trips
- Provide users with a space where they can track their previous travels
 - This provides users with previous travel destinations, their mode of transport, activities completed and when the holiday was through a journal entry of the holiday.
 - A photo album attached to the journal to allow users to collate all of the information and memories from their holiday and help create a visual log
- Provide users with a space to plan future travels
 - The aim of the wishlist is to allow users to collate all of the destinations that they want to travel to in one space
 - The aim of the planner is to allow users to plan future travels and use the wishlist feature to know where they want to travel next. The planner feature allows users to note the destination, date and transportation mode amongst other features like accommodation details so everything for a trip is in one place.

OBJECTIVES:

- Provide an easy to use, aesthetically pleasing hub to journal about previous trips
 - The journal will be intuitive, with users easily being able to create new journal entries for their travels. It will be clear how to set the destination of the travel and the duration, and attach a photo album to create a visual log of the trip
 - An objective of the previous trips includes a list and a map which highlights previously travelled destinations that have been inputted by the user against a database of recognised countries. From this, it will calculate the number of countries travelled, the percentage of the world travelled,

the number of continents travelled to and the number of countries within each continent

- Provide the user with a wishlist where they can select countries that they wish to go to.
 - The user would select the countries they want to out of a searchable list presented to them. The users then would be able to see a list of all the countries they've highlighted and a map that would also the highlighted countries
 - The wishlist of countries and the travelled countries are allowed to overlap, but it would prompt users if they want to remove a country from their wishlist if they create a travel journal entry with that country.
- Allow users to plan future trips
 - The planner section would be easy to navigate and allow users to create multiple future plans.
 - The user will be able to divide their trips into 3 sections: planning, planned and completed. The user will be able to see all of these together but also only view the trips in one section.
 - With trips in the planning stage, the user will be able to look at their wish list or search through the list of countries when deciding where to go.
 - The trips will include the sections: Destination, date, duration, currency, language, time difference, travel companions, transportation method and details, accommodation details, a to do list, packing list and itinerary. This will allow users to keep all details about their travel in one section
 - Planned trips with their dates included will send the user a notification reminder about the upcoming trip.
 - Completed trips will be able to be turned into journal entries by the user if they wish. This allows for the app to be easy to use and prevents users from having to input the same information into the journal entry manually.

Aims and Objectives
[view longer description](#)

A++	A+	A	B	C	D	E+	E - F	G
Concise but thorough description. Faultless. Very challenging aims, presented within a realistic framework.	Very good description. Good scope. Comprehensive.	Aims and objectives described in sufficient details.	Aims and objectives described in sufficient details. Minor omissions. The writing style has minor glitches.	Aims and objectives described somewhat briefly or not precisely. Possible omissions. Scope might appear somewhat limited. The writing style has glitches.	Aims and objectives described somewhat briefly or not precisely. Several omissions. Scope is limited. The writing style has glitches.	Unfocused or unclear description.	Uninformative description. Very limited aims.	No explicit description of the system's aims.

KEY LITERATURE & BACKGROUND READING

During the first couple of weeks of term you will be conducting background reading and

looking at various sources of information. Some will be technical (such as API documentation) and some will cover previous research in the area. In this section you should demonstrate a good knowledge of the topic area, discussing, citing and summarising key literature, and using it to justify your design and development decisions.

	A++	A+	A	B	C	D	E+	E - F	G
Description of Key Literature & Background view longer description	Excellent account of the application area. Clear and concise. Reveals thorough investigation of the relevant literature.	Well balanced, and detailed account. Reveals thorough investigation.	Well balanced, and detailed account.	Well balanced, and detailed account. Minor holes.	Relevant account, with obvious omissions.	The section provides information relevant to the project, but barely serves its purpose.	The section provides information somehow related to the project, but not quite enough for the whole thing to make sense.	Quite limited investigation of the relevant literature. Presentation is poor.	No background reading provided

DEVELOPMENT & IMPLEMENTATION SUMMARY

Bearing in mind that you won't have fully started development when you write the proposal, this section should summarise your (technical) plans. You should provide some details of your planned design (what will be the system main components? how will they be linked to each other? how they relate to the aims and objectives?). Provide a brief overview of your proposed development environment and implementation language, and the reasons why you chose them. Each project is different, so you might have little or lots to explain here. Also make sure this section covers the key question of how you will implement (realise) your project, including how your workflow will be organised.

Addendum. The main goal here is to convince us that you have put together a work plan that will fill the rest of the term. It is amazing what can be achieved these days with frameworks and a couple of library calls. That will NOT be enough on its own to earn A+ grades. Robust designs, research level technical solutions, might. If technology is there to save programming efforts the requirements should be extended to fill the available time.

Development and Implementation
Summary
[view longer description](#)

A++	A+	A	B	C	D	E+	E - F	G
Clear, complete, and concise account of the proposed design. Faultless writing quality. The section gives a clear glimpse of the planned system, and of the ideas and technologies to be used. Cutting edge design ideas.	Clear, complete, and concise account of the proposed design. Faultless writing quality. The section gives a clear glimpse of the planned system, and of the ideas and technologies to be used.	Clear, complete, and concise account of the proposed design.	The proposal contains a fairly detailed set of comments on the structure of the planned system, and its intended implementation.	The proposal contains a set of comments on the structure of the planned system, and its intended implementation.	The section contains some comments on the intended implementation, but the description is narrow or incomplete.	Relevant information, but limited.	Very little content. Mostly technology oriented. No connection with the project aims.	No detail given

DATA SOURCES

If you are using datasets from the public domain, accessing or processing publicly available text, or generating your own data as part of the project, mention it in this section. You should describe the data you will be using, state how it will be obtained, confirm you are using it with permission, and explain how you will ensure confidentiality of any personal information. If you're not using any data in your project then include a statement to that effect, but check with your project monitor that there is genuinely no data use. Remember that evaluation questionnaires will generate data.

Data Sources
[view longer description](#)

A++	A+	A	B	C	D	E+	E - F	G
Outstanding discussion on the data sources with critical arguments as to why they are needed/not needed	Excellent discussion demonstrating a clear understanding of the need/not need of the sources and how to acquire them.	Very good, complete description of all data sources.	Satisfactory description of the data sources.	Satisfactory description of the data sources, lacking detail	Generic discussion, with some relevance to the problem, important details are missing.	Mostly generic blurb on data sources, very little in terms of problem specific issues.	Vague and badly written	No description

TESTING & EVALUATION

Explain how you will test and evaluate your final product. At this stage you don't have to include a detailed testing plan, since you probably don't know exactly what components will be produced or how they will work together. However, you should at least have a high-level idea of the type of testing you will carry out. If you intend to use other people as beta testers, including the use of evaluation questionnaires, you should confirm that this will be done ethically (see the next section).

Testing and Evaluation
[view longer description](#)

A++	A+	A	B	C	D	E+	E - F	G
Thorough testing proposal, all aspects of system tested. Publishable evaluation plan.	Very Thorough. Very good quality plans.	Good testing suite. All main aims and objectives tested.	Testing proposal encompassing most aspects of the system.	Testing proposal encompassing the main aspects of the system. The proposal may contain little details about the evaluation.	Generic discussion, with only some details which relate to a problem specific testing strategy or carefully thought evaluation criteria.	Mostly generic blurb about testing. Very little in terms of a problem specific testing strategy or carefully thought evaluation criteria. Not quite enough to scrape a pass.	Vague and badly written.	No documentation related to testing or evaluation submitted.

During the development of our app, we will utilise several different methods of testing in order to ensure we produce valid code and can be confident in the functionality of the code we produce.

We will test our code against our aims and objectives to ensure that we are making our application according to the specification we set out. We will ensure that we leave adequate time for testing during the planning of our application.

During the development process we intend to use an issue tracker, such as YouTrack, in order to keep track of any bugs encountered during development. Using the issue tracker, we will also be able to link bugs to the source code within the version control system, git.

Validation will be included in all the setters, so validation is only performed once. This will ensure that code can be tested easier.

In order to test our application, we plan to utilise black box testing, such as orthogonal array testing.

We will utilise whitebox testing in order to test our application. This will include path testing to ensure that every line of our code has been tested.

We will conduct usability testing by getting at least 5 volunteers to use our application. We will use laboratory usability testing, so we will need an observer to watch the volunteer use our system in silence and take notes on their behaviours and report the outcome of the testing.

We will use the XCTesting framework in order to write our unit tests. This will allow us to

automate the testing and allow us to validate the code in the unit we're testing to ensure it behaves as intended. Each of our tests written using the testing framework will be named descriptively and concisely in order to make it clear what each of our tests are testing for.

The XCTesting framework will also be used for the performance testing of our application as it has options that allow for the gathering of performance measurements.

We will record all our tests in a table along with the results they produce as well as the results we expect them to produce.

ETHICAL CONSIDERATIONS

In this section you should mention anything that might require you to act ethically. You should state that you have read our [ethical guidelines](#) and will follow them. This will include the use of data in the public domain, the generation of new data, and the results of testing and evaluation. There could be other ethical considerations that are specific to your project. If so, discuss them with your project monitor and explain them briefly here.

The university's ethical guidelines have been read and will be followed by all team members during the duration of the project.

Data security: The app collects personal information about its users, including their travel history and future plans. It is therefore important that the app has security measures in place and will allow users to have control over their data and decide who can see it. Security measures can include encryption etc.

Accessibility: The app should be accessible to a range of people including those with disabilities and so the design should be inclusive and user-friendly. For example those who are colour blind can distinguish between two different icons using their shapes instead of just relying on their colour.

Fair use of data: The app should not use the user's data for purposes beyond what was agreed to by the user themselves. This includes using data for targeted advertising or selling it to third parties.

Respect for local laws and sensitivities: The app should comply with local laws and regulations of the countries and communities it displays including those related to the use of geolocation data, data protection and privacy. For example, some cultural

landmarks or locations may be off-limits for photography and therefore the app should make it clear which locations should be treated with respect.

User-generated content responsibilities: Although the app allows users to upload photos, comments, and other types of content, there should be clear guidelines in place on what types of content are acceptable. Any content regarded as inappropriate or harmful should be moderated and removed.

Trip planning and safety responsibilities: While the app can be a useful tool for planning trips, users must remember that it is their own responsibility to keep themselves safe when travelling. Other sources such as travel advisors and government websites can be used to view information on the potential dangers and risks that are associated with their travel plans.

Location data: In order to allow the app to use location data to show the user's travel destinations on a map, the user must provide consent. It's vital to be clear about how this data will be used and allow the users to have full control over their location data, such as being able to turn off the location services or delete previous location data. The app should also ensure that the location data is collected and stored securely.

Photo usage: The app should receive the user's consent before being able to access and use their photos. The user may also wish to allow the app to access only certain photos from their gallery through their selection. These photos must be stored securely and not shared without the user's permission.

Ethical Considerations view longer description	A++	A+	A	B	C	D	E+	E - F	G
	Critical and very insightful reflection, considers all aspects, not only the obvious data security ones, evidence of wide range readings.	Very thorough, comprehensive and critical reflection, some reading to backup arguments.	Comprehensive and well written reflection overall.	Good, balanced reflection.	Good reflection covering most aspects. Might be vague in places.	Satisfactory reflection covering some aspects, at times superficial, obvious points are missing.	Generic reflection, not much relevance to the actual project.	Vague and patchy arguments, not pertinent.	No reflection on ethics

BCS PROJECT CRITERIA

Your degree programme is accredited by [BCS](#), the Chartered Institute for IT. They require projects to demonstrate the following six outcomes.

- An ability to apply practical and analytical skills gained during the degree programme.
- Innovation and/or creativity.

- Synthesis of information, ideas and practices to provide a quality solution together with an evaluation of that solution.
- That your project meets a real need in a wider context.
- An ability to self-manage a significant piece of work.
- Critical self-evaluation of the process.

In this section you should explain how your project deliverables and development method will meet these criteria. Some of these might be covered in other sections of the document, so refer to them if necessary.

BCS Project Criteria
[view longer description](#)

A++ Critical and insightful discussion demonstrating research.	A+ Critical and comprehensive discussion	A Comprehensive discussion	B Good logical discussion, presented in sufficient detail. minor typos or inconsistencies.	C Satisfactory discussion, but occasional flaws may be present.	D Discussion displays some deficiencies and omissions.	E+ Discussion displays deficiencies and omissions in most aspects.	E - F Discussion displays serious deficiencies and omissions.	G No discussion on BSC criteria.
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UI/UX MOCKUP

At this point in the project you probably won't have a full design for whatever you are developing, but you will have a rough idea of what the UI (user interface) and UX (user experience) will be. This section should answer the key question of what your project will look like. Include a mockup of the user interface, either as a wireframe drawing or a pencil sketch that you scanned in. It doesn't have to be perfect, complete, or show every possible user interaction, and you might change the design later. It just needs to be enough to show that you have thought about what the software will look like and how it will be used.

Welcome screen, home screen (map view, tab bar), journal screen, settings page?

UI/UX Mockup
[view longer description](#)

A++ Exceptional, innovative proposal.	A+ Outstanding user experience proposal.	A Excellent design of the User interface.	B Competent work. Shows good understanding of the intended system's UI/UX dynamics; mostly clear design, covering most aspects.	C Satisfactory work. Shows some understanding of the intended system's UI/UX. Holes and gaps may be present.	D Evidence of an attempt to characterize the system's UX. Could be limited in scope or depth.	E+ Short, and not very informative.	E - F Virtually no description of the system's user experience or user interface. What is in the report makes very little sense.	G No description of the planned interface.
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PROJECT PLAN, RISKS & CONTINGENCY PLAN

Planning is crucial for a project run by a group of people, and bad planning is the most frequent cause of problems in a group project.

Include a Gantt chart (or similar project plan) with enough detail to show each stage of your project and your estimates for their duration. Show aspects that can overlap, activities that have dependencies, and so on. Remember to include time for presenting the project and writing all required documentation.

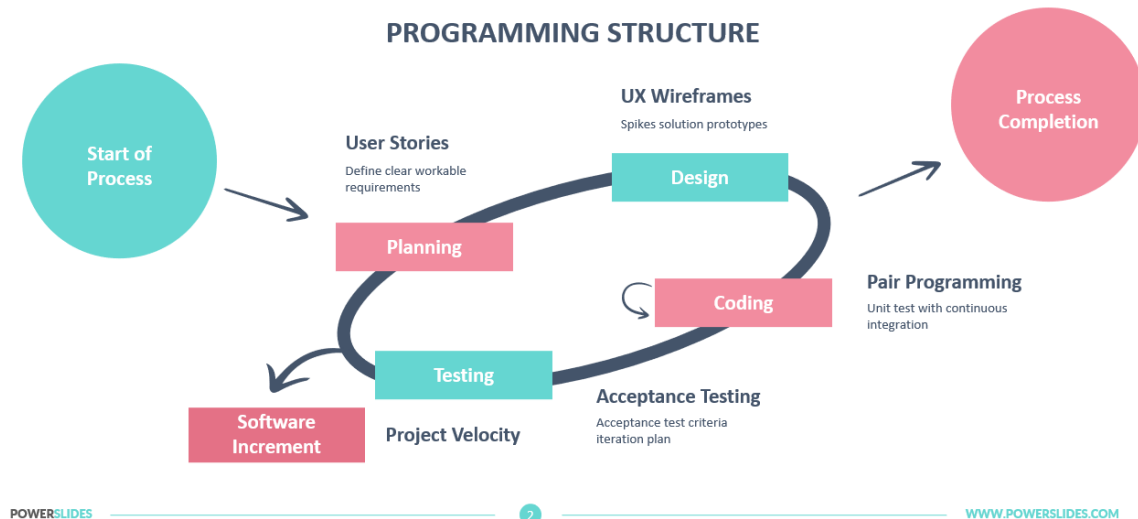
Include a table with four columns: Risks, Contingencies, Likelihood and Impact. Common risks for all projects include hardware failure, software failure, running out of time, and programming problems. List possible risks in the first column, and your plans for preventing or handling them in the second column. The third column should state how likely you think the risk is (low, medium or high) and the final column should state the impact. Sometimes things with very low likelihood, such as losing your backups, could have a very high impact on the project.

RISKS	CONTINGENCIES	LIKELIHOOD	IMPACT

We will be using Extreme Programming (XP) throughout our project for the development of our travel journal app: "Trip Track". This is because it uses an iterative development approach that emphasises continuous testing, collaboration, simple design, and continuous improvement. XP places the requirements of the application at the centre of the development process, ensuring that the end product meets the needs and expectations set out in the requirements analysis. The iterative development approach allows for rapid feedback and adaptation, making it easier to implement changes and improvements based on feedback. XP also prioritises testing and integration, reducing the likelihood of integration problems and ensuring a high level of code quality. By working collaboratively and focusing on simplicity and clarity, we can create a user-friendly and efficient travel journal app that meets the needs of its users. By using XP, we can ensure that the development process is efficient, the end product is of high

quality, and the project is delivered on time.

EXTREME PROGRAMMING



A Gantt chart can be good for Extreme Programming (XP) because it provides a visual representation of the project timeline and progress, helping to keep the group on track.

- **Scheduling and planning:** A Gantt chart provides a visual representation of the project schedule, making it easier to see what tasks need to be completed, when they are due, and who is responsible for them. This helps us plan our work and allocate resources effectively.
- **Task dependencies:** A Gantt chart makes it easy to see the dependencies between tasks, so we can identify any potential roadblocks or issues before they arise. This helps to reduce the risk of delays and keep the project on track.
- **Progress tracking:** A Gantt chart provides a visual representation of the progress of each task, making it easy to see which tasks are completed, which are in progress, and which are yet to start. The Gantt Chart includes a progress column that can be updated throughout the project, this helps to keep the team focused on their goals and ensures that the project is delivered on time.
- **Communication:** A Gantt chart provides a visual representation of the project timeline, making it easier to communicate project progress and any changes which can be later discussed at the weekly meetings. This helps to keep everyone informed and on the same page, reducing the risk of misunderstandings and

ensuring the project stays on track.

Some dependencies noted on the Gantt Chart:

1.

Break-down of activities as noted on Gantt Chart:

1.

We will decide our pairs for “Pair Programming” closer to when we start implementing the code, which will be in a few weeks time. Acceptance tests will also be written during the “Design” part of our project.

Project Plan view longer description	A++ Outstanding planning details submitted, with detailed break down of the activities to be completed. Dependencies and assignment of responsibilities , and a mechanism is very clear for checking and updating the plan, and react to events.	A+ Very good planning details submitted. This includes a break down of the activities to be completed. Dependencies and assignment of responsibilities . A process for checking and updating the plan should be in place.	A Very good planning details submitted. This includes a break down of the activities to be completed. Dependencies and assignment of responsibilities .	B Good plan submitted. Typically including a Gantt chart.	C Satisfactory plan submitted. Typically including a Gantt chart. Details of parts of the plan might be unclear.	D Very short plan description, with unclear task allocation. Limited time planning	E+ Very succinct plan description, missing assignment of responsibilities , or realistic awareness of time	E - F The section does contain some information that could be considered part of the planning process, but the material is incomplete, inconsistent, unfocused. Not really good enough	G No plan submitted.
	A++ Outstanding risk assessment. This project will deliver no matter what! Clearly well researched and relevant to the project.	A+ Excellent and well argued risk assessment, critical insights on the process.	A Thorough risk assessment and contingency plan.	B Mostly realistic risk assessment and contingency plan.	C Fairly detailed risk assessment and contingency plan.	D Basic risk assessment. Missing some important features.	E+ Mostly generic blurb about risks, could apply to any project, not much effort in contextualising to the actual task at hand.	E - F Vague and badly written.	G No risk assessment.

REFERENCES

List references to articles, websites, videos, datasets, journals, and any other background reading you carried out while writing the document and planning your project.

References should be cited properly in the main body of the document. You should use the [Harvard](#) or [IEEE](#) referencing style. Guidance is available on the [university library website](#).

References

[view longer description](#)

A++	A+	A	B	C	D	E+	E - F	G
References described and cited appropriately. Broad and cutting edge recent literature cited.	References described and cited appropriately; Broad and cutting edge literature cited.	References described and cited appropriately.	Most references described and cited appropriately.	Most references described and cited satisfactorily. Occasional unclear citations or bibliographic details.	Some references described and cited satisfactorily. Broadly complete list.	Very few references described and cited satisfactorily. Incomplete list, missing obvious sources.	Poor referencing/Citations. Incomplete list, missing obvious sources.	No reference list and citations.