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Assignment 2: Project Management & Innovation.

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Software and Data

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Introduction

This assignment builds on my project idea, BookLens, which is an app meant to provide clear and practical summaries of books or chapters. The goal of this project is to look into how digital tools, especially those that use artificial intelligence (AI), can improve learning and knowledge-sharing in a fast-paced world where time is often short. Given the growing need for easy-to-access and personalised learning resources, the project seeks to explore how summarisation technology can benefit different users, such as students, professionals, and casual readers.

The importance of this project to the program lies in its connection to creativity, innovation, and the use of data for solving problems. It merges new ideas about how people take in information with data-driven strategies for designing and improving digital tools. At its heart, the project faces the challenge of balancing user needs, technology, and ethical concerns, which are key topics in the study of creativity and innovation.

I will discuss methods to ensure validity, reliability, generalizability, and ethical soundness. Then, it will identify appropriate data collection methods and suggest a pilot activity to refine them. Lastly, it will lay out methods for both quantitative and qualitative data analysis, demonstrating how each perspective can deepen our understanding of the problem.

Project Management

Q1: Project Management and Planning

The scope of my project is to design and evaluate **BookLens**, a mobile application that will allow users to scan books and receive AI-generated summaries and personalized book recommendations. This project aims to investigate how technology can facilitate quicker and more flexible learning, particularly for students and professionals with limited time. The proposed solutions blend traditional reading with digital tools that will create added value by simplifying information and encouraging engagement with reading.

To achieve this goal, the project will require various technologies and resources. These include access to machine learning models for natural language processing, a mobile development platform, and databases to store book information and user data. Open-source tools like Python and Firebase could assist in development at the prototype stage. Resource planning also involves time management, collaboration tools, and research literature on AI in education [1].

I have mapped a project timeline using a **Gantt chart (APPENDIX A)**, which outlines stages such as literature review, requirement gathering, prototype design, testing, and final evaluation. The schedule spreads tasks over several weeks to ensure progress. Key points include limited development time, reliance on secondary research rather than live testing with users, and the availability of resources like datasets for training summarisation models. Recognising these constraints early helps manage risks effectively [2].

The development method chosen for this project is an **agile-inspired approach**. Agile is suitable because it focuses on development flexibility and incorporates feedback during the process. In practice, this means breaking the project into short stages, such as requirement research, initial prototype design, and evaluation, each producing usable outputs that guide the next stage. Due to the nature of the project, the agile model allows for adaptability, which is crucial when exploring technologies like AI summarisation [3].

By combining careful planning with an iterative development strategy, this project remains both organised and flexible. The Gantt chart clarifies scheduling, while Agile provides the adaptability

needed to refine the idea as it progresses. This balance aligns with project management literature that encourages combining structured planning with adaptive methods [4].

For this project, I will follow an **Agile-inspired iterative approach**. This is suitable because I am not creating a finished app but exploring and testing an idea that develops over time. The iterative style allows me to work in small steps, check my progress, and adjust the next stage if something changes. This is more realistic for my project than a strict, fixed plan like Waterfall, because it allows me to be creative and flexible.

This approach connects directly to my Gantt chart. The first stage covers research and background reading, giving me a foundation. The second stage focuses on exploring AI summarisation and considering user needs, which helps refine the idea. The third stage involves drafting aims and objectives, and reflecting on the project's development. The final stage is editing and submission. Each stage builds on the last, but I still have space to make changes if I find new insights.

The Agile Alliance explains that iterative development allows work to be revisited and improved as ideas evolve [5]. This makes it a good match for my project, which is based on research and creativity rather than producing a final working product.

Q2: Project Design

The flowchart (Appendix B) shows the main process flow for the BookLens app. It begins when the user opens the app and scans a book using the cover or barcode. The system then processes the data with AI. If the app can generate a summary, it provides a short version of the book or chapter. After that, it also suggests related authors or books to extend the user's learning. If no summary is generated, the process ends. This design highlights how the app aims to make reading quicker, easier, and more engaging for different users.

The wireframe (Appendix C) shows three main screens of the BookLens app. The first screen features a prominent "Scan Book" button. This keeps the design simple and focused. The second screen illustrates the processing stage, where the system checks the book data. The third screen shows the results with a summary, recommendations, and an option to save to the user's library. Using colour blocks helps between the various stages, making the design more straightforward. This design approach focuses on the user by making navigation easy and ensuring that the main tasks are accessible with minimal effort.

Enterprise and Innovation

T2: Enterprise

Q1: PEST & SWOT Analysis

A PEST analysis (Appendix D) shows that BookLens faces key political and legal challenges, particularly copyright law and GDPR. It must follow these regulations to protect both intellectual property and user data [6]. Economically, the EdTech market is expanding, creating opportunities. However, competition from established players like Blinkist and the cost of AI development remain risks [5]. Socially, the demand for quick, accessible learning is increasing, which benefits BookLens. Technologically, advances in AI make the app possible, though issues like bias and accuracy still pose challenges [5].

The SWOT analysis (Appendix E) highlights BookLens's strengths, such as fast AI-driven summaries and personalized recommendations, which meet current learning needs. Weaknesses include reliance on AI accuracy and low brand recognition.

Together, the PEST and SWOT tables suggest that while there are challenges, the growing demand for digital learning gives BookLens strong potential if risks are carefully managed.

Legal and Ethical Considerations:

For a book summarisation app like BookLens, one of the biggest challenges is dealing with copyright law. Summaries must be created in a way that is transformative and does not replace the original work. According to UK Government copyright guidance, even shortened versions can still be protected by copyright if they copy too closely [6]. Also, since BookLens would use AI to generate summaries, there are ethical concerns about how the AI handles information. As Schwab explains, new technologies should be developed and used responsibly to avoid reinforcing bias or spreading misinformation [5]. Finally, the app must comply with GDPR by keeping user data secure and being transparent about how it collects and processes that data [6].

Q2:

BookLens as a Start-up

The start-up will be named BookLens. The name focuses on how the app zooms in on books and gives users short summaries powered by AI. A simple logo can combine an open book with a magnifying glass to emphasise clarity and insight.



Business Type

The business would be set up as a private Limited Company (Ltd) in the UK. This structure protects the founder from personal liability, allows shares to be issued for investment, and is a common choice for tech companies [8].

Business Strategy

BookLens offers a clear value. It saves time for readers by providing AI-generated summaries and personalized book recommendations. The initial target audience includes students, professionals, and lifelong learners who often struggle to find time for reading. The app will use a freemium model, offering basic summaries for free. Premium subscriptions will provide access to features like detailed chapter breakdowns. Future growth may involve expanding into different languages and forming partnerships with universities, publishers, and elearning platforms. HolonIQ [7] notes that the EdTech market is growing quickly, which gives BookLens a chance to expand.

Funding Initiatives

To potentially fund the start-up, there are a few options that can be considered. Crowdfunding through platforms like Kickstarter or Indiegogo could help build an early community of users and raise initial capital. Angel Investors and venture capital firms that focus on EdTech and AI could

also be approached. Additionally, UK-based government innovation funds like Innovate UK offer grants for new digital learning tools [9]. Partnerships with academic institutions and publishers could provide more financial and strategic support.

Task 3: Project Reflection

Working on my BookLens project idea has given me a great chance to think about how I can grow personally and professionally while designing a digital product. This reflection outlines how the project can help me acquire new skills, how those skills and the project could have a positive impact on society, and what risks or challenges I might encounter along the way.

Developing New Skills

Through BookLens, I plan to develop both technical and transferable skills. On the technical side, exploring how AI summarisation can work allows me to understand machine learning applications better. Even if I am not building the entire AI system myself, I can still learn how datasets, algorithms, and natural language processing models interact. This skill is essential for anyone in the technology field today because AI is becoming important in many industries.

Alongside this, I will improve my design skills by creating wireframes, flowcharts, and a prototype app interface. Tools like Figma or diagrams.net will help me practice visual communication, which is crucial for sharing ideas with developers, investors, or users.

Project management and research skills are equally important. Creating a Gantt chart, working through objectives, and using an agile-inspired development approach will teach me how to break large projects into smaller, manageable tasks. These skills can be applied in nearly any workplace or future project.

Working on BookLens has motivated me to consider other digital ideas and even build a small scale app in the future. Gaining practical experience in app development could enhance my technical knowledge and provide a valuable asset when applying for jobs in the tech industry. Employers want candidates who demonstrate initiative and hands-on experience, so experimenting with app-building could enhance my career prospects.

Contribution to Society

The potential positive impact of BookLens lies in making reading and learning more accessible. Many people, from busy professionals to students, struggle to find time to read full-length books. By providing short AI-generated summaries and recommendations, BookLens could help individuals learn more efficiently and discover new authors. This has social value because easier access to knowledge supports lifelong learning and can improve employability.

Another way this project benefits society is by promoting educational equality. Students who cannot afford expensive textbooks could gain from summaries that give them a head start on understanding a subject. While BookLens would not replace full books, it could lower barriers to learning, especially when paired with free or affordable access models.

Additionally, developing this project helps me grow as a creative thinker and problem solver. These traits are valuable for the broader economy, as innovation and digital skills are recognised as essential for growth in the current industrial landscape.

Risks and Challenges

Like any project, BookLens faces risks. One of the biggest challenges is copyright. Summaries must be created in a way that is transformative and not a substitute for the original text. According to UK Government guidance, even shortened versions of books can still be subject to copyright if they are too closely reproduced. To lessen this risk, I would aim to ensure the app presents summaries as study aids rather than replacements and collaborate with publishers when possible.

Another challenge is the ethical use of AI. If the AI produces biased or inaccurate summaries, it could mislead readers. Schwab stresses that new technologies must be developed responsibly. To address this, I would incorporate human oversight and clear disclaimers into the app.

Data protection is another risk. Since BookLens would likely collect user preferences to recommend books, it must comply with GDPR and other privacy laws. This means implementing transparent consent processes, anonymising data, and ensuring security measures are in place.

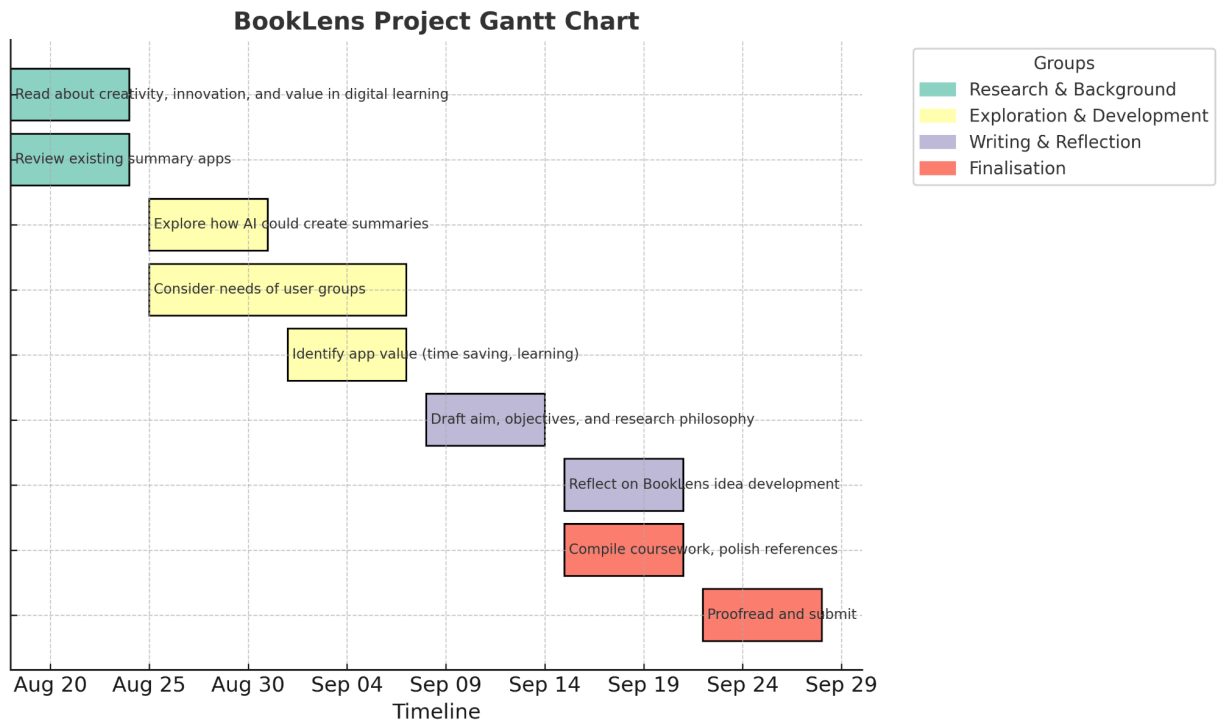
Finally, market competition poses a risk. Free alternatives, like online study notes, already exist. To stand out, BookLens will need a unique selling point, such as high-quality AI summaries combined with personalisation and book discovery features.

Conclusion

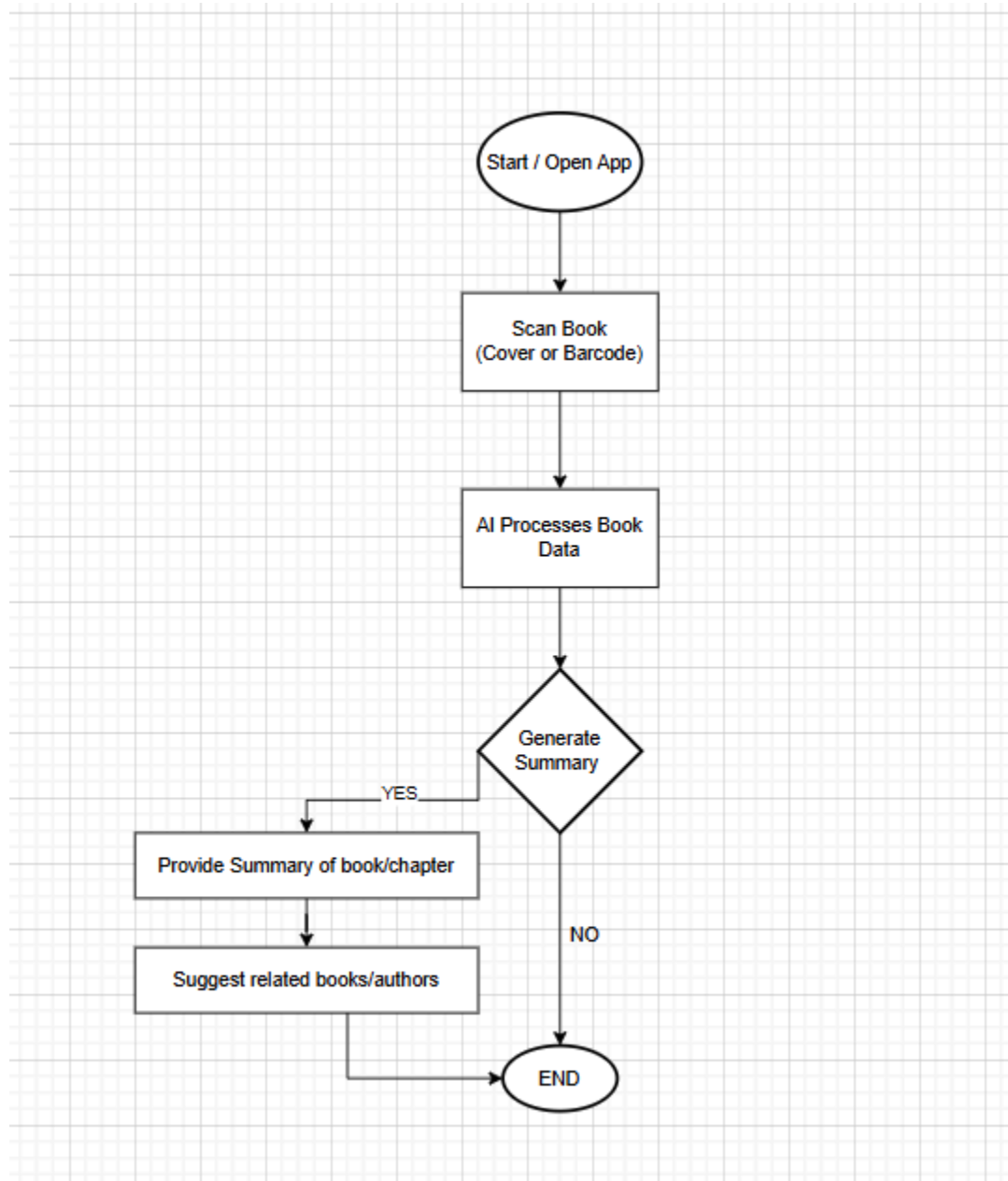
Reflecting on the BookLens project has made me realise it is not just a creative idea but also an opportunity for personal growth. By developing skills in AI, design, and project management, I will be better equipped to face future challenges in the technology field. The project has also prompted me to consider other digital ideas and even attempt to build a functioning app, which would be an excellent experience to highlight for future employers. At the same time, the project could offer real value to society by making knowledge more accessible. While challenges like copyright, data privacy, and competition exist, these can be managed with ethical practices, legal awareness, and innovation. Overall, BookLens represents both a journey of personal development and a concept with potential societal impact.

Appendices

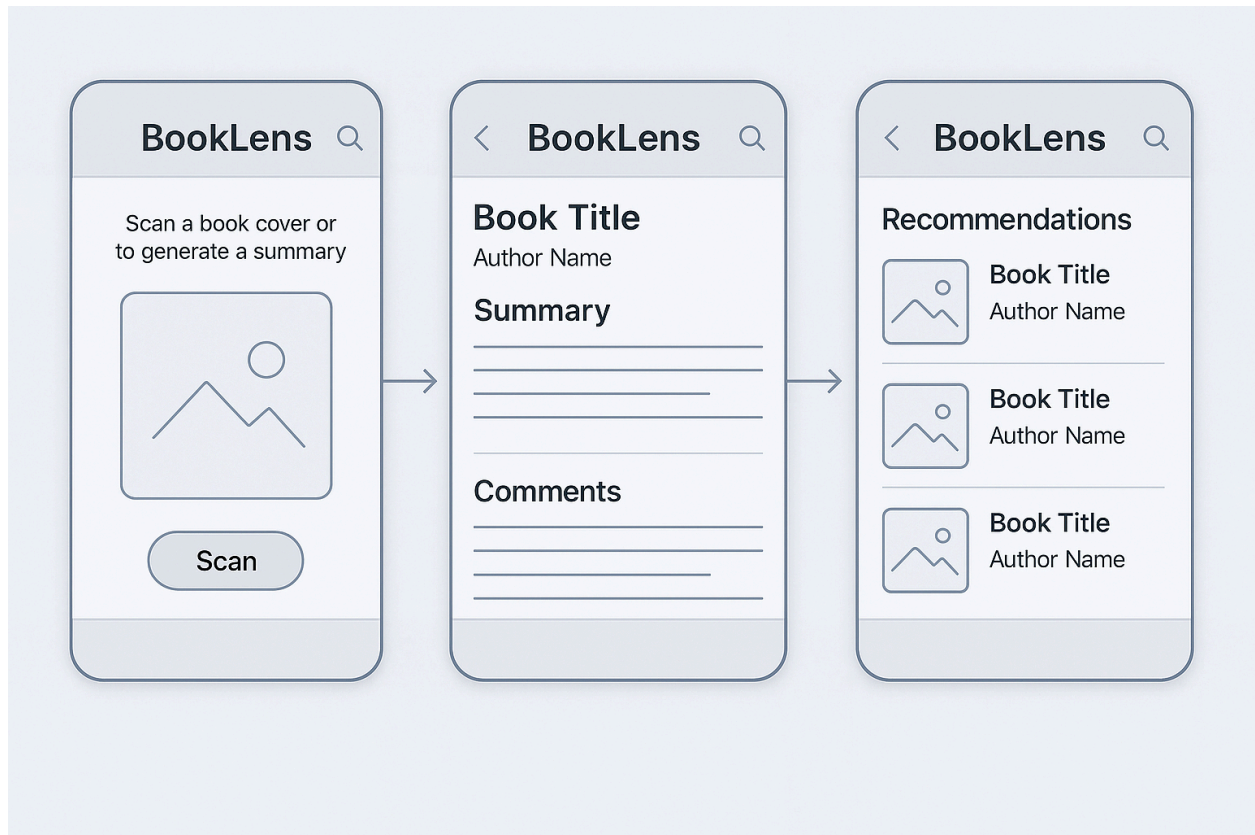
Appendix A - Gantt Chart



Appendix B - Flow Chart for BookLens



Appendix C - WireFrame Design



Appendix C - BookLens (LABELLED AS C TO SHOW DESIGN BRANDING ALONGSIDE UI)



Appendix D - Pest Analysis

<i>Factor Considerations</i>	
<i>Political</i>	Subject to copyright and intellectual property laws in various countries. This includes GDPR and data protection in the EU [6].
<i>Economic</i>	The EdTech market is growing. Subscription models provide stable revenue, but acquiring new users can be costly [7].
<i>Social</i>	There is a rising demand for micro learning due to busy lifestyles. Users want quick and easy access to learning resources [7].
<i>Technological</i>	Advances in AI enable better summarisation tools, and mobile-first learning continues to grow annually, according to the statistics. As Schwab [5] discusses in his work on the fourth Industrial Revolution, AI and digital tools are changing how people learn and access knowledge.

Appendix E - SWOT Analysis

Strengths	Weaknesses
Unique concept in AI Summarisation, not just repeating existing models.	Reliance on publishers for rights.
Simple scanning and summary feature in BookLens makes it easy to use.	Limited depth in book summaries
Meets growing demand for accessible, flexible formats.	Limited funding and marketing resources as a new start up

Opportunities	Threats
Rising interest in AI-driven personalised learning	Competition from free resources and new start-ups
Potential for partnerships with universities	Legal challenges around copyright.
Expand to cover audiobooks, podcasts and professional learning tools.	Ethical risks around AI bias, misinformation, and data privacy issues.

Appendix F - Online learning

moodle.uwtsd.ac.uk/mod/scorm/player.php?a=7787¤torg=GAMs2022_5.1.3.4_ORG&scoid=17127&sesskey=WX7gQQ9BM8&display=popup&mode=normal

 **Unit 3 Topic 4 completed!**

You should now:

- Be able to demonstrate an understanding of the key stages of prototyping and the process of testing.
- Be able to demonstrate an understanding of agile methodologies and identify prototyping techniques and their value.
- Have a deeper understanding of developing ideas and apply this to your own work.

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If you have taken notes using the in-built notebook, you can now export them.

[Export my notes](#) ↗

Here are listed the references that are used in this topic.

[References](#) 📖

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