PRINCE2™ - Project Plan

Project Name:	AI-Driven Assessment System		
Date:	31/03/2025	**Release:**	Draft/Final
Author:	Jessica Nguyen – Student ID: [redacted] (contributed 100%) Jason [redacted] – Student ID: [redacted] (contributed 100%) Samuel [redacted] – Student ID: [redacted] (contributed 100%) Timothy [redacted] – Student ID: [redacted] (contributed 100%) Aaron [redacted] - Student ID: [redacted] (contributed 100%) Nabil [redacted] - Student ID: [redacted] (contributed 100%)		
Owner: **Class Activity:**	Jessica Nguyen – Student ID: [redacted] (contributed 100%) Tutorial 7, Group 5		
Client:	Netherlands Government		
Document Number:	N/A		

Note: This document is only valid on the day it was printed

Revision History

Date of next revision:

Revision Date	Previous Revision Date	Summary of Changes	Changes Marked
24/03/2025	-	Initial draft creation. Sections completed: Plan Description, Plan Prerequisites, External Dependencies, Planning Assumptions, Lessons Incorporated.	N/A
26/03/2025	24/03/2025	Added Monitoring and Control, Budgets, Tolerances, Product Descriptions, and Schedule.	N/A
31/03/2025	26/03/2025	Revision of Final Submission	N/A

Approvals

This document requires the following approvals. A signed copy should be placed in the project files.

Name	Signature	Title	Date of Issue	Version
Husam [redacted]	.....	Tutor	31/03/2025	1

Distribution

This document has been distributed to:

Name	Section/s	Date of Issue	Version
Jessica Nguyen	Tolerances	30/03/2025	1
Samuel [redacted]	Budgets	28/03/2025	1
Timothy [redacted]	Plan Description, Project Description	30/03/2025	1
Aaron [redacted]	Lessons incorporated	30/03/2025	1
Jason [redacted]	Planning Assumptions, Monitoring and Control & Schedule	31/03/2025	1
Nabil [redacted]	Plan Prerequisites & External Dependencies	21/03/2025	1

Overview

Purpose

A plan provides a statement of how and when objectives are to be achieved, by showing the major products, activities and resources required for the scope of the plan. In PRINCE2, there are three levels of plan: project, stage and team. Team Plans are optional and may not need to follow the same composition as a Project Plan or Stage Plan.

An Exception Plan is created at the same level as the plan that it is replacing.

A Project Plan provides the Business Case with planned costs, and it identifies the management stages and other major control points. It is used by the Project Board as a baseline against which to monitor project progress.

Stage Plans cover the products, resources, activities and controls specific to the stage and are used as a baseline against which to monitor stage progress.

Team Plans (if used) could comprise just a schedule appended to the Work Package(s) assigned to the Team Manager.

A plan should cover not just the activities to create products but also the activities to manage product creation - including activities for assurance, quality management, risk management, configuration management, communication and any other project controls required.

Contents

The Plan should cover the following topics.

Advice

The Plan is derived from the Project Brief, Quality Management Strategy (for quality management activities to be included in the plan), Risk Management Strategy (for risk management activities to be included in the plan), Communication Management Strategy (for communication management activities to be included in the plan), Configuration Management Strategy (for configuration management activities to be included in the plan), Resource availability, and Registers and logs.

The Plan can take several formats including: A stand-alone document or a section of the Project Initiation Documentation; Document, spreadsheet, presentation slides or mind map; Entry in a project management tool.

The schedule may be in the form of a product checklist (which is a list of the products to be delivered within the scope of the plan, together with key status dates such as draft ready, quality inspected, approved etc.) or the output from a project planning tool.

The following quality criteria should be observed:

- The plan is achievable
- Estimates are based on consultation with the resources, who will undertake the work, and/or historical data
- Team Managers agree that their part of the plan is achievable
- It is planned to an appropriate level of detail (not too much, not too little)
- The plan conforms to required corporate or programme standards
- The plan incorporates lessons from previous projects
- The plan incorporates any legal requirements
- The Plan covers management and control activities (such as quality) as well as the activities to create the products in scope
- The plan supports the Quality Management Strategy, Configuration Management Strategy, Risk Management Strategy, Communication Management Strategy and project approach
- The plan supports the management controls defined in the Project Initiation Documentation

Plan Description

This plan outlines the approach and structure of the Netherlands Housing Allocation Project, that aims to develop and integrate an AI-based allocation system for housing. The plan follows principles from the PRINCE2 methodology and covers project scope, objectives, timelines, resources and monitoring mechanisms, while detailing major activities such as product creation, quality and risk managements and communication, will be tracked and coordinated throughout the project lifetime.

The plan is structured at the project level and acts as a baseline for progress monitoring, ensuring that defined objectives remain aligned with stakeholder needs and expectations as well as the approved Business Case, while incorporating insights from similar projects with aims to improve efficiency and failure avoidance. The key deliverables for this plan include a schedule, budgetary allocations, risk management mechanisms, tolerances and dependencies.

By clearly defining these aspects and elements of the project, the plan ensures that the project maintains its direction, aligns with established timelines and quality standards, overarchingly delivering the expected outcomes within budget constraints.

Plan Prerequisites

- **Project Initiation Document (PID) Approval:** The project must be formally initiated with an approved PID.
- **Funding Availability:** The allocated budget of $2,000,000 must be secured and accessible.
- **Team Availability:** The project team members (JN, NE, JN, AC, TN, SH) must be available and committed to their assigned roles.
- **Stakeholder Engagement:** Key stakeholders, including the Netherlands government representatives, must be engaged and supportive of the project.
- **Access to Data:** The project team must have access to the necessary databases (applicant, residence) and algorithms.
- **Collaborative Tools:** The agreed-upon collaborative tools (e.g., Google Docs, MS Teams) must be set up and accessible to all team members.

External Dependencies

- **Government Policy:** The project's success is dependent on the stability of Dutch social housing policies. Any significant changes in these regulations could necessitate adjustments to the system's requirements and potentially impact the project timeline. We will monitor policy updates and maintain communication with government stakeholders.
- **Third-Party Vendors:** The project may rely on external vendors for specific software components, AI API keys, or cloud hosting services. Delays or performance issues with these vendors could affect project delivery. Vendor contracts will be established with clear service level agreements.
- **Database Availability:** The project requires continuous access to the applicant and residence databases maintained by the Dutch government. Any disruptions or downtime in these systems could hinder development and testing activities. We will establish protocols for data access and backup procedures.
- **Priority Algorithm:** The project requires successful integration with the external program that determines the priority list of applicants for each residence. Changes to this program or issues with its functionality could impact the system's ability to accurately assess applications. We will work closely with the team responsible for the priority algorithm to ensure compatibility and timely communication.

Planning Assumptions

The planning assumptions that are expected to remain true throughout the project plan include:

1) ***Stable Eligibility Criteria*** – It is assumed that the criteria used to assess housing applications, such as age category or household size will remain consistent during the project timeline
2) ***AI System Performance*** – The AI model can be trained and tested using existing data from applications and will achieve acceptable levels of accuracy to automate the application assessment process
3) ***Timely Feedback from Stakeholders*** – It is assumed that stakeholders, including policy officers and public servants, will provide timely feedback during reviews and testing phases to avoid the delay of the project.
4) ***Zero Ethical Barriers*** – It is assumed that the AI system does not experience any legal restrictions or significant public oppositions that would halt the application process in assessing residents or applicants' eligibility.
5) ***User Training and Change Acceptance*** – It's expected that the 'Government Public Officer' and applicants will be open to training and adapt to the AI system without major resistance

Lessons Incorporated OBJ

Leverage previous experiences in automated systems and social housing allocation, valuable lessons can be extracted to enable and ensure an efficient, robust and effective solution for the project. Key lessons that will be incorporated after review into the project plan include:

1) ***Application Assessment*** - Utilising manual assessment processes in similar projects which are time consuming have been prone to delays. Thus, implementation of an AI-driven system will reduce the processing time whilst continuing to provide the minimum standard or greater of accuracy and fairness. This highlights the importance of automating time-intensive manual labour to increase efficiency without the compromise of quality.

2) ***Adherence to Eligibility Criteria*** - Social housing allocation has presented an importance for strict adherence to its eligibility criteria. The plan should ensure that the AI-driven system accurately evaluates against the parameters, preventing errors.

3) ***Seamless Data Integration*** - Centralised and accessible databases have been key to effectively allocate houses. Learning from similar systems, emphasising a seamless integration between existing databases and AI-driven systems enables real-time data to be analysed and distributed for efficient decision-making.

4) ***Transparency in Allocation*** - Transparency on information has always led to an increase in trust for a system. Through publishing key figures on residence assignments, applicants can formulate informed decisions. By adding these features such as application status and potential success rates, it builds trust and enhances the experiences for all users.

5) ***Robust Appeal Mechanism*** - Allowing applicants to appeal the AI-driven model's decision, users will continue to trust the system. For appealed applications, government officers will review said case and will make further judgement. By doing so, the system can leverage the efficiency of the AI-driven model and provide accountability through the means of appeals.

6) ***Scalability and Adaptability*** - Experience from the previous system, housing demands fluctuate. Demands are also foreseen to increase as population steadily increases. Thus, the system is required to be adaptable and scalable. This will accommodate for future changes in policy or demand, ensure longevity and viability of the system.

7) ***Ethical Considerations*** - Ethical concerns of AI-driven models have always been a concern, some examples of it include AI bias. Therefore, by ensuring the model undergoes testing, validation and monitoring throughout its usage will guarantee equitable treatment of all applicants. Applicants who don't feel like they have been treated fairly are provided with the option to appeal, in addition to the transparency of data given to applicants when applying for residency, therefore upholding ethical standards.

Monitoring and Control

The 'Monitoring and Control' will outline how the progress of the AI housing allocation system will be tracked and maintained to ensure delivery stays aligned with the project plan while effectively managing risks and issues. The measures of monitoring and controlling this project plan include:

1) ***Weekly Progress Meetings*** ***(Both)*** – There will be regular team check-ins that will be held every Monday via MS Teams, as well as every Friday in class to review milestones, identify risks and track completion of scheduled tasks

2) ***Stage Reviews*** ***(Control)*** – Each project stage will end with a formal review against deliverables, time and cost to evaluate progress and readiness for the next stage to ensure no errors or bias occur

3) ***Milestone Reporting*** ***(Monitoring)*** – Key project milestones, such as AI prototype and the integration of the AI housing allocation system with databases will all be monitored and logged in the project schedule for reporting to the Project Board

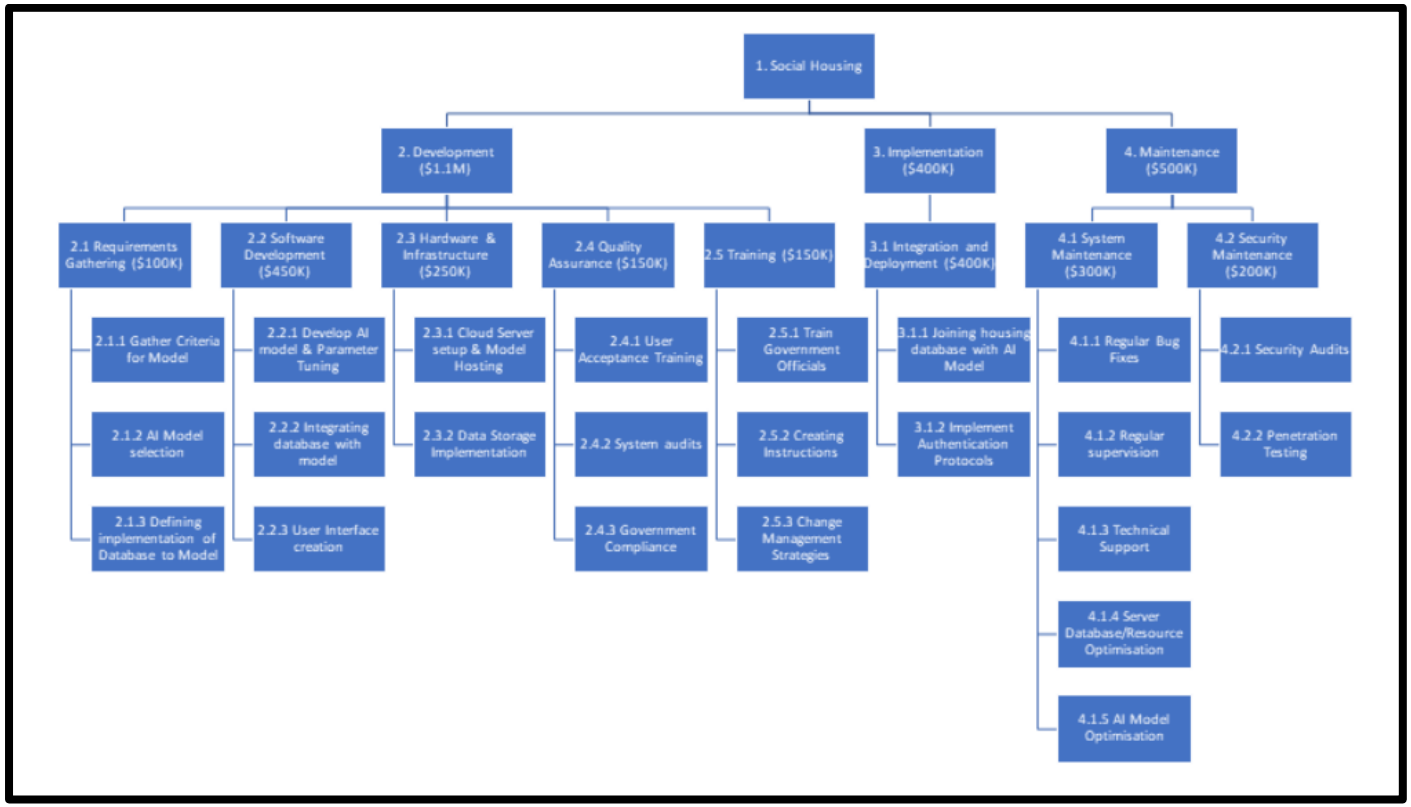
4) ***Issue and Risk Logs*** ***(Both)*** - A shared log will be maintained (and reviewed weekly) to document all emerging issues and risks that may arise in the AI system, along with their status and assigned actions

5) ***Quality Assurance*** ***(QA)*** ***Checks*** ***[Control]*** – QA activities will be scheduled during the development and testing phases of this project plan to ensure the outputs meet requirements, including reviewing AI decision logs and appeal handling.

6) ***Tolerance Monitoring*** – Time and cost tolerances will be tracked for each stage. Any changes outside these tolerances will trigger the creation of an exception plan, which will outline the cause of these changes, assess their impacts on the overall project and propose corrective actions or adjustments to bring the project back on track, and to be subject to approval by the Project Board

Budgets

Based on the Business Brief and Business Case documents, the expected timeline for the project completion is 3 months with a budget of $2,000,000. A Detailed Budget and Costs Breakdown can be found in Business Case Cost section.



Tolerances

These tolerances are expanded from the section, 'Project Tolerances' in the Project Brief documentation, which includes:

Time

- *System processing time are not to exceed for more than an hour, reducing application backlog.*
    - If processing time exceeds this, a system update notification is displayed on the webpage to inform new applicants.
    - For current applicants, a system update notification is sent via email.
- *Project delays should not exceed after 5 months from confirmed launch date.*
    - If this delay exceeds, the project manager must discuss with project board to discuss constraints in the system development issues and review with developers for an alternative launch date should the issue for delay is reasonable.

Cost

- *System maintenance cost capped at $500,000 can be exceeded up to 10%.*
    - If this exceeds, the project manager must conduct a meeting with the project board to discuss the details on the additional maintenance costs required and approved by the project board
    - Once additional costs are approved, project manager is required to discuss these changes with the team managers, project assurance and support teams
- *15% remuneration is required for technical support services during the initial launch for system failures or assistance.*
    - If system failures are more frequent, a system update notification is displayed on the webpage to inform new applicants on alternative application methods, such as phone screening or paper-based application
    - Project manager must discuss with developers on system improvements

Quality

- *15% inaccuracy in eligibility assessments based on housing regulations and government criteria.*
    - If this accuracy decreases further, a 'Local Government Public Officer' must review the application.
    - In the meantime, the project manager must discuss with developers on system improvements, ensuring increased accuracy
- *System maintenance should only delay processing applications in one day to reduce backlog.*
        - If process delays are more than a day initiate escalation process, prioritising applicants that urgently need rental residences

Scope

- *Out-of-scope housing requests are to be reviewed within 3 days after application processed.*
    - If these requests require further consideration, a ‘Local Government Public Officer’ must contact the applicant in a phone screening process, understanding the reasons for these requests.
- *Declined out-of-scope requests are further reviewed by a ‘Local Government Public Officer’ within 3 days after rejection.*
    - The officer must send an email notification immediately after the decision is made with alternative options.
- *It is expected that up to 30% of applicants will have difficulties applying online.*
    - If the number of applicants with this difficulty increases, a phone screening process must be conducted with the applicant by a ‘Local Government Public Officer’ as part of the application.
- *It is expected that up to 20% of landlords may have issues leasing their properties to local government services due to ineligible housing conditions or rental payment disagreements.*
    - If the number of landlords having the following issues increases, either:
        - Create a waiting list for landlords by informing landlords on eligible housing conditions.
        - Consider flexible payment options between landlords and tenants (i.e. applicants) that can be negotiated.
- *During the initial launch, there should be at least 5 technicians on standby for assisting users.*
    - If the number of technicians exceed by 5, a ‘Local Government Public Officer’ must conduct a phone screening with the applicant, as part of the application process.

Risk

- *During the initial launch, system processing delays are expected by 10.*
    - If this exceeds, system improvements should be discussed between the project manager and developers and actioned.
- *Urgent applications are to be escalated for vulnerable applicants within a day during system maintenance.*
    - If there is backlog of urgent applications, prioritise urgent applications through a phone screening process with the applicant.

Product Descriptions

This section outlines and defines the key deliverables of the Netherlands Housing Allocation Project, demonstrating their purpose, quality criteria and dependencies to ensure alignment with project objectives and stakeholder expectations.

1. AI Housing Allocation System - The AI-driven system, which is the primary product of this project, is a system that evaluates housing applications based on eligibility criteria and priority algorithms, ensuring fair and equitable allocations of applicants.
   a. **Quality Criteria:**
      - Requires a minimum of 90% accuracy in matching applicants to available housing.
      - Must handle a processing load of 10,000+ applications per day.
      - The AI model must demonstrate explainable and auditable decision-making in accordance with transparency and fairness policies.
      - The model must support seamless integration with government databases and the priority algorithm without disruptions.
   b. **Dependencies:**
      - Requires access to applicant and residence databases, compliance with Dutch housing policies and integration with the priority algorithm.

2. Database Integration Module - A backend module enabling real-time data synchronisation between the AI system and government databases, maintaining application information and housing availability alignment and are consistently updated accurately.
   a. **Quality Criteria:**
      - Data retrieval and updates must occur within two seconds of request.
      - The process must maintain a 99.9% uptime to prevent allocation delays
      - Security measures and data encryption must comply with GDPR and Dutch government regulations to prevent breaches or attacks.
   b. **Dependencies:**
      - Government database access and secure data exchange protocols

3. Government Officer Dashboard - A web-based interface for housing officers to review applications, monitor and oversee AI decisions and manage any appeals from applicants.
   a. **Quality Criteria:**
      - Intuitive and accessible UI with a learning curve of under two hours for officers.
      - Response time for all user interactions should be under 1.5 seconds.

      Include logging and audit trails for all manual interventions and interactions.
   b. **Dependencies:**
      - Fully functional AI system and secure user authentication.

4. Applicant Portal - A web-based or mobile-accessible portal for applicants to submit housing applications, monitor application statuses and receive allocation decisions and or notifications.
   a. **Quality Criteria:**
      - Must be accessible via desktop and mobile devices
      - Multiple languages must be supported (English and Dutch)
      - Real-time application status updates must be delivered with and via notifications
   b. **Dependencies:**
      - Database integration and secure login mechanisms.

5. Appeals and Review System - A structured mechanism that allows applicants to challenge AI decisions, with cases flagged for manual review by government officers.
   a. **Quality Criteria:**
      - Appeals submitted must be process within three business days.
      - AI decision logs must be accessible for review and justification.
      - Must include an automated tracking system for appeals
   b. **Dependencies:**
      - A government dashboard for manual review and audit logs of AI decisions.

6. System Documentation and Training Materials - Comprehensive documentation that covers the system architecture, AI decision-making processes, database interactions and user guides for both government officers and applicants.
   a. **Quality Criteria:**
      - All documents must be reviewed and approved by at least two stakeholders.
      - Training modules must be interactive and accessible online.
      - There must include step-by-step user guides for officers and applicants using the system.
   b. **Dependencies:**
      - Completion of system components and user feedback integration to refine training materials.

Schedule

This may include or reference graphical representations of the following:

- Gantt or bar chart
- Product breakdown structure
- Product flow diagram
- Activity Network
- Table of resource requirements – by resource type (e.g. four engineers, one test manager, one business analyst)
- Table of requested/assigned specific resources –by name (e.g. Nikki, Jay, Francesca)

The Schedule may also be in the form of a Product Checklist as shown below

Product Identifier	Product Title	Product Description approved		Draft Ready		Final Quality Check completed		Approved		Handed Over (if applicable)	
		Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual
1	**AI Housing Allocation System** ('Product Description' 1)	21/02/25 – Start early as core system.	22/02/25 – 1-day delay.	05/03/25 – Development buffer.	06/03/25 – Backend sync.	19/03/25 – Mid-Quality Control.	21/03/25 – Fixes needed.	26/03/25 – Prep for handover.	27/03/25 – Aligned with docs.	30/03/25 – Final push.	31/03/25 – Team lag.
2	**Database Integration Module** ('Product Description' 2)	26/02/25 – Backend follows AI.	27/02/25 – Backend issues.	10/03/25 – Sync with AI testing.	12/03/25 – Minor delay.	24/03/25 – Ready for live data.	25/03/25 – Validation delayed.	31/03/25 – Final review.	01/04/25 – Resolved sync.	04/04/25 – Transfer ready.	06/04/25 – Finalised.
3	**Government Officer Dashboard** ('Product Description' 3)	03/03/25 – Dashboard needs AI first.	04/03/25 – Slight delay.	17/03/25 – UI ready.	18/03/25 – Visual bugs.	31/03/25 – Officer ready.	02/04/25 – Audit late.	07/04/25 – Final polish.	09/04/25 – Done after Quality Control.	11/04/25 – Go live.	14/04/25 – Minor fix.
4	**Applicant Portal** ('Product Description' 4)	06/03/25 – After Dashboard access.	06/03/25 – On schedule.	20/03/25 – UI + language setup.	21/03/25 – UI tweaks.	03/04/25 – Device test.	04/04/25 – Layout fix.	10/04/25 – Review.	11/04/25 – QA passed.	14/04/25 – Handover.	16/04/25 – Finalised.
5	**Appeals and Review System** ('Product Description' 5)	10/03/25 – After AI logic.	11/03/25 – Minor delay.	24/03/25 – Appeals structure.	25/03/25 – Officer review added.	07/04/25 – Fairness check.	08/04/25 – Compliance QA.	14/04/25 – Final review.	15/04/25 – Ready.	18/04/25 – Delivered.	21/04/25 – Go live.
6	**System Docs & Training Materials** ('Product Description' 6)	17/03/25 – After most systems done.	18/03/25 – After reviews.	31/03/25 – Docs compiled.	01/04/25 – Based on feedback	14/04/25 – Final review.	15/04/25 – Document fixes.	21/04/25 – Stakeholder signoff.	22/04/25 – Stakeholder approved.	28/04/25 – Last delivery.	30/04/25 – All files submitted.

Gantt Chart