From testrm1.pdf — Automatic Frontend Generation from OpenAPI

- 1. What is the main objective of the framework proposed in the project?
- 2. List the key components involved in the architecture of the framework.
- 3. What are the inputs required for generating the frontend in the framework?
- 4. What frontend technology is used in the generated application?
- 5. How does the Populator module work in the system?
- 6. Explain the process of frontend generation described in the workflow.
- 7. What performance evaluation metrics were used in this project?
- 8. How was the usability of the generated frontend evaluated?
- 9. Mention three research works referenced in the literature review regarding frontend code generation.
- 10. What is the role of the FreeMarker template engine in the framework?

From FYP.pdf — ReportMiner: Al-Powered Data Extraction and Query System

- 1. What are the main objectives of the ReportMiner project?
- 2. Which technologies are used for file parsing in ReportMiner?
- 3. What are the five phases outlined in the project roadmap?
- 4. What file formats can be ingested into ReportMiner?
- 5. How does the system handle natural language queries?
- 6. What is the purpose of Celery in the system design?
- 7. Describe the role of OpenAl APIs in the data extraction pipeline.

- 8. What is the difference between structured and unstructured data handling in ReportMiner?
- 9. How is the ingestion pipeline validated according to the plan?
- 10. What security recommendations are provided for deploying ReportMiner?

From testupload2.pdf - Development of an Exoskeleton Robot for Knee Rehabilitation

General & Intro

- 1. What is the aim of the knee exoskeleton project?
- 2. What are the main components considered in the exoskeleton design?
- 3. What are the benefits of using robotic exoskeletons in knee rehabilitation?
- 4. Which exercise was used to calculate torque requirements for the knee joint?

Design & Engineering

- 5. What anthropometric data was used to design the knee exoskeleton?
- 6. What is the estimated torque requirement for the actuator?
- 7. What is the calculated Bowden cable tension in the system?
- 8. How was the shaft diameter determined for the knee joint mechanism?
- 9. What is the function of the polycentric 4-bar linkage in the design?
- 10. How was the motion capture data used in the mechanism design?

Control Systems

- 11. What are the components of the control system in this exoskeleton?
- 12. What is the purpose of the PID controller in this system?
- 13. How does the high-level controller determine user movement intent?

- 14. What sensor types are used for muscle condition recognition?
- 15. What machine learning models are used in movement recognition?

Materials & Fabrication

- 16. What material was ultimately chosen for the exoskeleton frame and why?
- 17. Why were deep groove ball bearings used instead of roller bearings?
- 18. How was topology optimization applied in the design?

Evaluation & Results

- 19. How effective was the smart compression garment during rehabilitation?
- 20. What were the findings from the PID tuning simulations?
- 21. How was user feedback collected and interpreted in the project?
- 22. What was the final weight of the exoskeleton prototype?

Innovation & Gap Addressing

- 23. How does this project address limitations in traditional 4-bar exoskeletons?
- 24. What makes this exoskeleton design different from prior work like HAL or KAFO?
- 25. How was therapeutic compression integrated into the design?