1. Introduction

* Brief overview of finite state machines
* Motivation for implementing FSMs in C
* Course goals and objectives

1. Basic FSMs

* Review of basic FSM concepts
* Definition of states and transitions
* Implementing a simple FSM in C
* Example: Traffic light controller FSM

1. FSMs with Stopping States

* Introduction to stopping states
* Adding stopping states to FSMs in C
* Example: Lock FSM with stopping states

1. FSMs with Outputs

* Introduction to outputs
* Replacing stopping states with outputs in FSMs
* Implementing FSMs with outputs in C
* Example: Vending machine FSM with outputs

1. FSM Design Best Practices

* Best practices for FSM design
* Design patterns for FSMs in C
* Debugging FSMs in C

1. Conclusion

* Review of key concepts covered in the course
* Future directions for implementing FSMs in C
* Resources for further learning