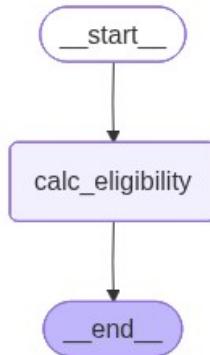


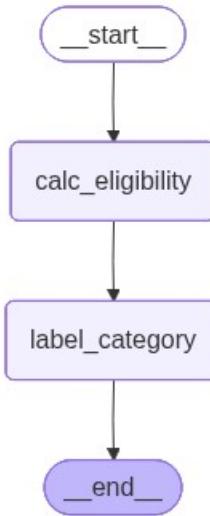
## LangGraph Sequential flow

Lets say you want to automate a standard process, instead of using Agents, they will take over the entire stuff, we can have a workflow and decide how this will go. By doing this, we are having a control on how it will start and end but in between operations will involve AI. In LangGraph, we specify the entire flow, how it will start and end. We are using the AI power only in the functions in between. Lets say we have a workflow, which has 5 steps, from start to end (we can have a fixed starting point and ending point), in between whatever step you do that will involve AI.

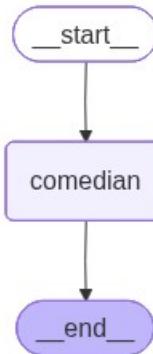
Ran loan\_eligibility.py to generate png



Ran loan\_eligibility\_cat.py



Ran AI\_comedian\_workflow



Ran prompt-chaining.py

```
with open('AI_comedian_computer_science_chain.png', 'rb') as f:
```

```
{'topic': 'Write an essay on greatness of Java', 'outline': "Title: The Greatness of Java: An Influential Force in the World of Programming\n\nI. Introduction\n    A. Brief introduction to the role of programming languages in technology.\n    B. Introduction to Java: A robust, versatile, and enduring language.\n    C. Thesis statement: Java's greatness lies in its widespread adoption, platform independence, thriving ecosystem, and contribution to software development and innovation.\n\nII. Historical Context and Evolution of Java\n    A. Origin of Java\n        1. Developed by Sun Microsystems in the mid-1990s.\n        2. The vision of James Gosling and his team.\n    B. Key milestones in Java's evolution\n        1. Initial release and rapid adoption.\n        2. Major versions and features introduced over time.\n        3. Java's role in transitioning from standalone applications to network-based applications.\n\nIII. Core Values that Define Java's Greatness\n    A. Write Once, Run Anywhere (WORA)\n        1. Explanation of platform independence.\n        2. The role of Java Virtual Machine (JVM) in achieving WORA.\n    B. Object-Oriented Programming (OOP)\n        1. Encapsulation, inheritance, and polymorphism.\n        2. Benefits of OOP in software design and maintenance.\n    C. Security features\n        1. Built-in security mechanisms and the sandbox environment.\n        2. Impact on developing secure applications.\n\nIV. Java's Ubiquitous Presence\n    A. Dominance in Enterprise Solutions\n        1. Use in large-scale enterprise applications.\n        2. Java Enterprise Edition (Java EE) and its frameworks.\n    B. Influence in Android Development\n        1. Role of Java in building Android applications.\n        2. Transition towards Kotlin and the enduring relevance of Java.\n    C. Java in Web Development\n        1. JavaServer Pages (JSP) and Servlets.\n        2. Frameworks like Spring and Hibernate.\n\nV. Java's Ecosystem and Community support\n    A. Rich set of libraries and frameworks\n        1. Extensive APIs and third-party libraries.\n        2. Impact on development speed and innovation.\n    B. Supportive developer community\n        1. Open-source contributions.\n        2. Online forums, guides, and tutorials.\n\nVI. Java's Contribution to Educational and Career Opportunities\n    A. Java as a fundamental language in computer science education.\n        1. Importance in teaching programming concepts.\n        2. Use in university curricula and coding boot camps.\n    B. Career prospects and industry demand\n        1. Prevalence of Java roles in the job market.\n        2. Career growth and opportunities for Java developers.\n\nVII. Conclusion\n    A. Summary of Java's influence and impact.\n    B. Final thoughts on Java's enduring relevance and future prospects."}
```

