Objective: Create an automated virtual network provisioning system that leverages the capabilities of ONAP, SDN technologies, and YANG tools. The project involves the creation and management of virtual networks using YANG data models, which are orchestrated by ONAP, and implemented through an SDN controller.

1. **ONAP Integration:** Integrate the ONAP framework into the project. ONAP will serve as the orchestration platform to automate and manage network services.

2. **SDN Controller**: Implement an SDN controller such as OpenDaylight to manage the virtual network infrastructure. The SDN controller will communicate with ONAP.

3. **YANG Data Models**: Define the YANG data models to describe the structure and configuration of virtual networks, network functions, and services. These models will be used to communicate network requirements and configurations between ONAP and the SDN controller.

4. **Automation Scripts**: Develop automation scripts or applications that communicate with ONAP and the SDN controller to provision, configure, and manage virtual networks based on the YANG data models.

Project Workflow:

1. **Define YANG Data Models**: Create YANG data models that describe the virtual network's structure, policies, and configurations.

2. **ONAP Orchestration**: Use ONAP to orchestrate the provisioning of virtual networks, specifying the YANG data models as the desired network configurations.

3.**SDN Control:** The SDN controller interacts with the virtual network infrastructure to implement the configurations defined by ONAP and the YANG data models.

The following steps are involved in network slicing using ONAP:

1. The user submits a request to the ONAP network slicing service to create a new network slice.
2. The network slicing service validates the request and creates a network slice definition based on the request.
3. The network slicing service submits the network slice definition to the SDN controller.
4. The SDN controller uses the network slice definition to configure the network devices to support the network slice.
5. The network slicing service submits the network slice definition to the VNF manager.
6. The VNF manager uses the network slice definition to deploy and configure the VNFs for the network slice.
7. The VNF manager sends a notification to the network slicing service when the VNFs have been deployed and configured.

8. The network slicing service sends a notification to the user when the network slice has been created.

Here are some of the benefits while using ONAP for network slicing:

- **Increased agility:** ONAP can help to automate the network slicing process, which can reduce the time it takes to create and deploy new network slices.

- **Reduced cost:** ONAP can help to reduce the cost of network slicing by automating the process and reducing the need for manual intervention.

- **Improved performance:** ONAP can help to improve the performance of network slices by providing a more efficient and scalable network slicing process.