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# **5th Semester-Data science**

# **BSDSM-F22-009-DS**

# **COMPUTER NETWORK LAB**

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**Q1:Why are we using 2911 routers and not the others?**

Reasons for Using the Cisco 2911 Router in Cisco Packet Tracer is

### **Balanced Features and Performance**

* **Performance:** The 2911 provides a good balance between performance and features, making it suitable for a wide range of network simulations.
* **Feature Set:** Supports advanced features such as security, routing protocols (OSPF, EIGRP), and IP services, making it versatile for both basic and advanced scenarios.

### **Educational Focus and Compatibility**

* **Simulation Needs:** Selected for its relevance to the Cisco networking curriculum, offering a realistic experience of configuring a mid-range router.
* **Compatibility:** Aligns well with various network configurations and educational scenarios, providing a valuable learning experience for students and professionals.

**Q2:Why are we using the 2950T or 2960 switch and not the others?**

### Reasons for Using the Cisco 2950T or 2960 Switch in Cisco Packet Tracer

### **Balanced Functionality and Educational Value**

* **Feature Set:** Both the Cisco 2950T and Cisco 2960 offer essential Layer 2 switching features such as VLAN support, Spanning Tree Protocol (STP), and port security, making them suitable for learning and simulating fundamental networking concepts.
* **Educational Focus:** These switches are included because they represent common models used in educational environments, providing a practical understanding of basic and intermediate switching concepts.

**Compatibility and Real-World Relevance**

* **Realistic Simulations:** The 2950T and 2960 are widely used in real-world networks, making them ideal for replicating realistic network scenarios and configurations.
* **Practical Application:** Their inclusion ensures that simulations in Packet Tracer align with real-world networking practices, helping learners gain relevant experience with devices that mirror industry standards.

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### **Comparison with Other Switch Models**

* **Older or Basic Models:** Switches like the 2950 offer basic functionality but may lack some advanced features found in newer models. The 2950T adds Gigabit Ethernet uplinks, providing a slight performance enhancement.
* **Advanced Models:** Newer or more advanced switches might not be included in Packet Tracer due to complexity or resource constraints, while the 2960 and 2950T strike a balance between functionality and manageability for educational purposes.