



**Department of Computer Science**

**Quaid-e-Azam University, Islamabad**

**Assignment 1**

**Snakes**

Prepared by:

**HURR MEHDI**

**M. SEHAL BILAL**

**M. ASAD**

Submitted to:

**DR. AMBREEN RASHID**

2nd June 2025

**Introduction to Snakes**

Snakes are fascinating, legless reptiles found all over the world except Antarctica. With over 4,000 different species, they play important roles in nature as both predators and prey. Some snakes are harmless, while others are venomous and dangerous.

**Classification of Snakes**

Snakes belong to the following scientific groups:

* Domain: Eukaryota (organisms with complex cells)
* Kingdom: Animalia (animals)
* Phylum: Chordata (animals with spinal cords)
* Class: Reptilia (reptiles)
* Order: Squamata (scaled reptiles)
* Clade: Ophidia (snakes and their ancestors)
* Suborder: Serpentes (snakes)

Out of nearly 10,000 reptile species, about 4,100 are snakes, showing how successful they are as predators.

**Types of Snakes**

Snakes are divided into six main families:

1. Pythonidae (Pythons) – Large snakes, some reaching 30 feet, with small leftover leg bones.
2. Boidae (Anacondas & Boas) – Heavy snakes like the 500-pound Anaconda.
3. Viperidae (Vipers) – Have long, hinged fangs for injecting venom.
4. Elapidae (Elapids) – Use powerful neurotoxic venom (e.g., cobras, mambas).
5. Colubridae (Colubrids) – Mostly harmless, like garden snakes.
6. Leptotyphlopidae (Threadsnakes) – Tiny, worm-like snakes that eat ants and termites.

Most Dangerous Snake: The Black Mamba is considered the deadliest due to its size and strong neurotoxic venom.

**Snake Anatomy**

Snakes have unique body features:

* Head: Contains fangs (in venomous snakes), nostrils, a forked tongue, and a brain.
* Eyes: Covered by a clear scale (brille) for protection; they cannot blink.
* Mouth: Expandable jaws that stretch to swallow prey larger than their head.
* Body: Long, flexible, and covered in overlapping scales for smooth movement.
* Internal Organs: Includes a heart, lungs, liver, stomach, intestines, and venom glands (in some species).

**Snake Movement**

Snakes move in different ways:

1. Serpentine (S-shaped movement) – Used on rough ground.
2. Concertina (Bunching and stretching) – Helps in climbing.
3. Sidewinding (Looping sideways) – Used in deserts to avoid sinking in sand.
4. Rectilinear (Straight-line crawling) – Slow, muscle-driven movement.

Their belly scales act like tire treads, helping them grip surfaces.

**Snake Sizes**

* Smallest: Barbados threadsnake (as tiny as a coin).
* Largest: Reticulated Python (averages 5 meters, with the longest recorded at 10 meters in 1912).

**Snake Habitats**

Snakes live in many places:

* Forests
* Deserts
* Grasslands
* Swamps
* Lakes
* Oceans (some sea snakes)

**Venomous vs. Non-Venomous Snakes**

* Venomous Snakes (Fewer than 600 species): Only about a third can deliver deadly bites.
* Non-Venomous Snakes (Most species): Harmless to humans.

**Uses of Snake Venom:**

* Used in medicines to create life-saving drugs.
* Symbol of healing in ancient Greek culture.

**Importance of Snakes**

* Ecosystem Role: They control rodent populations, protecting crops.
* Cultural Significance: Found in myths, religions (like Adam and Eve), and traditions worldwide.

**Conclusion**

Snakes are amazing creatures with diverse shapes, sizes, and behaviors. While some are dangerous, most are harmless and essential to nature. They inspire both fear and fascination, playing key roles in medicine, farming, and culture.