The UDP (User Datagram Protocol) header is 8 bytes (64 bits) long. It contains four fields, each 2 bytes (16 bits) in length. Here are the different fields and how their values are set:

UDP Header Fields

1. **Source Port (16 bits)**:
    - **Value**: This is the port number of the sender.
    - **Explanation**: This field specifies the source port number. If the source is not required to be identified, this field may be set to zero. Port numbers are used to direct the packet to the appropriate application process on the host.
2. **Destination Port (16 bits)**:
    - **Value**: This is the port number of the receiver.
    - **Explanation**: This field specifies the destination port number. It indicates the port of the service on the receiving host to which the packet should be delivered.
3. **Length (16 bits)**:
    - **Value**: The length of the UDP header and the data.
    - **Explanation**: This field specifies the total length of the UDP packet, including both header and data. The minimum value is 8 bytes (for a packet with no data).
4. **Checksum (16 bits)**:
    - **Value**: A computed value used for error-checking.
    - **Explanation**: This field is used to verify the integrity of the packet. It is a checksum that covers the UDP header, the data, and a pseudo-header of fields from the IP header. If the sender does not use a checksum, it is set to zero.

Setting the Field Values

1. **Source Port**:
    - Determined by the application sending the data. The application or operating system chooses an available port number, often dynamically assigned from the range of ephemeral ports.
2. **Destination Port**:

- Set by the application to the port number of the service on the receiving host. For example, port 53 for DNS, port 80 for HTTP, etc.

3. **Length**:
    - Calculated as the sum of the length of the UDP header (8 bytes) and the length of the encapsulated data. For example, if the data payload is 20 bytes, the length field would be 8 + 20 = 28 bytes.
4. **Checksum**:
    - Calculated by the sender. It covers the UDP header, the data, and a pseudo-header which includes the source IP address, destination IP address, protocol (UDP), and UDP length. The calculation involves:
        - Padding the data to ensure it is a multiple of 16 bits.
        - Summing all 16-bit words, including the pseudo-header.
        - Adding any overflow bits to the least significant 16 bits.
        - Taking the one's complement of the sum to form the checksum.
    - The receiver recalculates the checksum upon receiving the packet and verifies it against the checksum field to ensure data integrity.

```
User Datagram Protocol, Src Port: 443, Dst Port: 61067
   Source Port: 443
   Destination Port: 61067
   Length: 40
   Checksum: 0x2057 [unverified]
   [Checksum Status: Unverified]
   [Stream index: 5]
 ⌄ [Timestamps]
      [Time since first frame: 0.000000000 seconds]
      [Time since previous frame: 0.000000000 seconds]
   UDP payload (32 bytes)
Data (32 bytes)
   Data: 5cc4d49d015f639b78c434a566e0852ca57e63dd15c9954f906cfd1035cb564c
   [Length: 32]
```