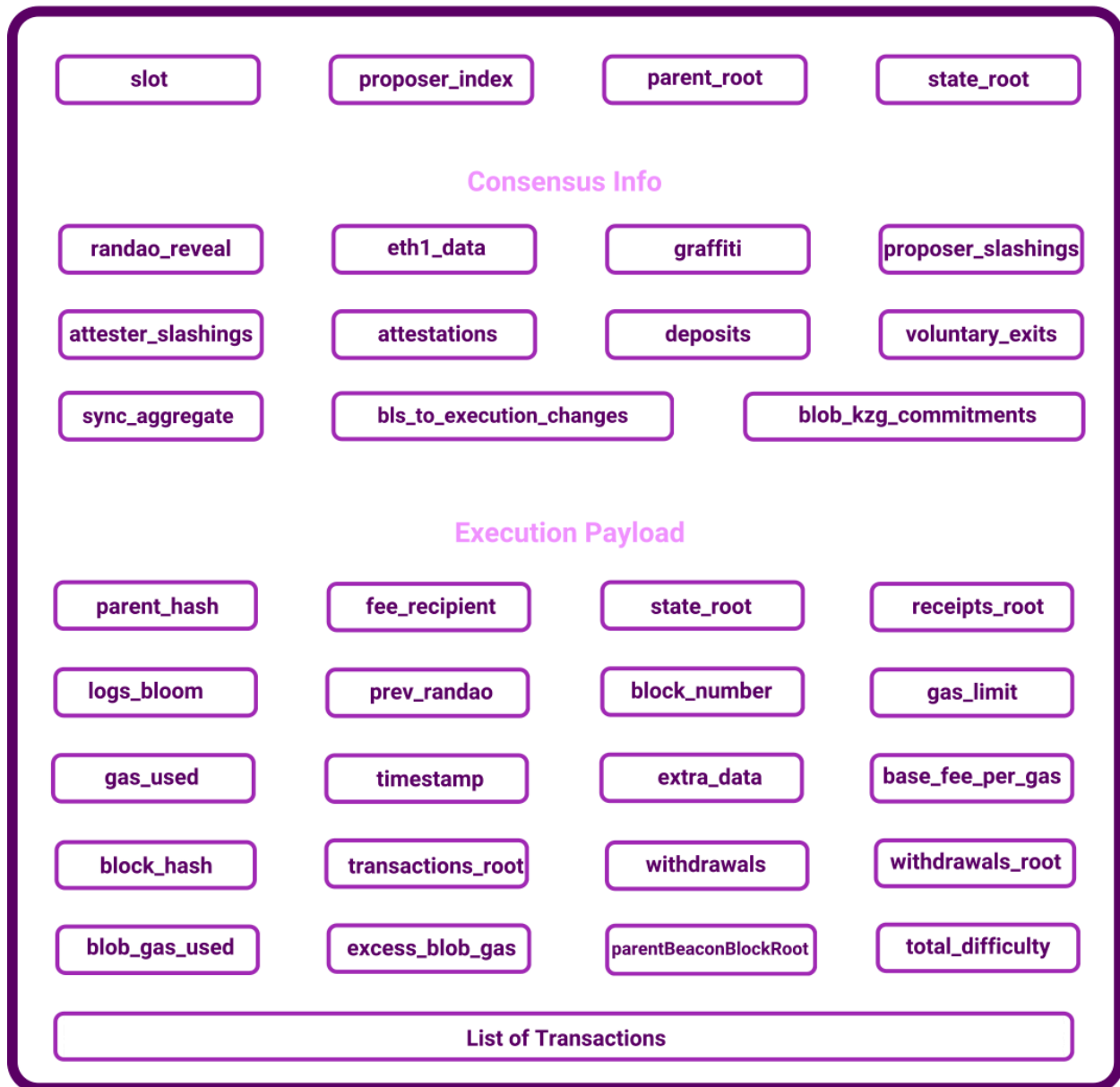


## Ethereum Block



### Fields in a block

- **slot:** the timeslot number the block belongs to
- **proposer\_index:** the ID of the validator proposing the block
- **parent\_root:** the hash of the preceding block
- **state\_root:** identifier of the entire state of the system.

Consensus Information part consists of fields related to the Proof of Stake algorithm.

- **randao\_reveal:** Block proposer's sign on current epoch. A value used to randomly select the next block proposer.
- **eth1\_data:** Status of the deposit contract
- **graffiti:** Arbitrary data used by validator to tag blocks
- **Proposer\_slashings & attester\_slashings:** List of validators to be slashed
- **attestations:** List of votes in favour of the current block
- **deposits:** List of new deposits to the deposit contract
- **voluntary\_exits:** List of validators exiting the network
- **sync\_aggregate:** Subset of validators used to serve light clients ( devices which have low resources)
- **bls\_to\_execution\_changes :** Number of validators that have changed their stake withdrawal credentials from BLS format to execution address format.
- **blob\_kzg\_commitments:** Cryptographic commitment of data stored in blob.

The execution\_payload section will consist of transactions passed from the execution client (EVM).

- **parent\_hash:** hash of the parent (previous) block
- **fee\_recipient:** validator which receives the transaction fees
- **state\_root:** Keccak-256 hash of root node of the state trie generated after applying changes in this block.
- **receipts\_root:** Keccak-256 hash of root node of the receipts trie, created over the receipts of all transactions included in this block.
- **logs\_bloom:** data structure containing indexed log entries from transactions receipts
- **prev\_randao:** value used in random validator selection. This field replaced an earlier field *mixHash*, related to PoW.
- **block\_number:** the number of the current block
- **gas\_limit:** current maximum gas allowed for current block
- **gas\_used:** the actual amount of gas used by transactions in current block
- **timestamp:** the time when the block was created
- **extra\_data:** arbitrary additional data as raw bytes
- **base\_fee\_per\_gas:** the minimum fee per gas required for a transaction to be included in a block.
- **block\_hash:** Hash of execution payload block
- **transactions\_root:** The Keccak-256 root hash of root node of transactions trie, created over all the transactions included in the block
- **withdrawals:** list of validator withdrawals
- **withdrawals\_root:** root hash of validator withdrawal data.
- **blob\_gas\_used** and **excess\_blob\_gas** fields have gas usages about blob storage in the consensus layer.
- **parentBeaconBlockRoot:** hash of the parent beacon block for the given execution block.

- **total\_difficulty**: A field which represents the cumulative difficulty till the current block. This was relevant during PoW stage of Ethereum.
- **transaction list**: list of transactions batched together in the block.

Several previous fields like **ommers**, **ommersHash**, **difficulty**, **mixHash**, **nonce**, etc are now deprecated and either contain default or a constant value.