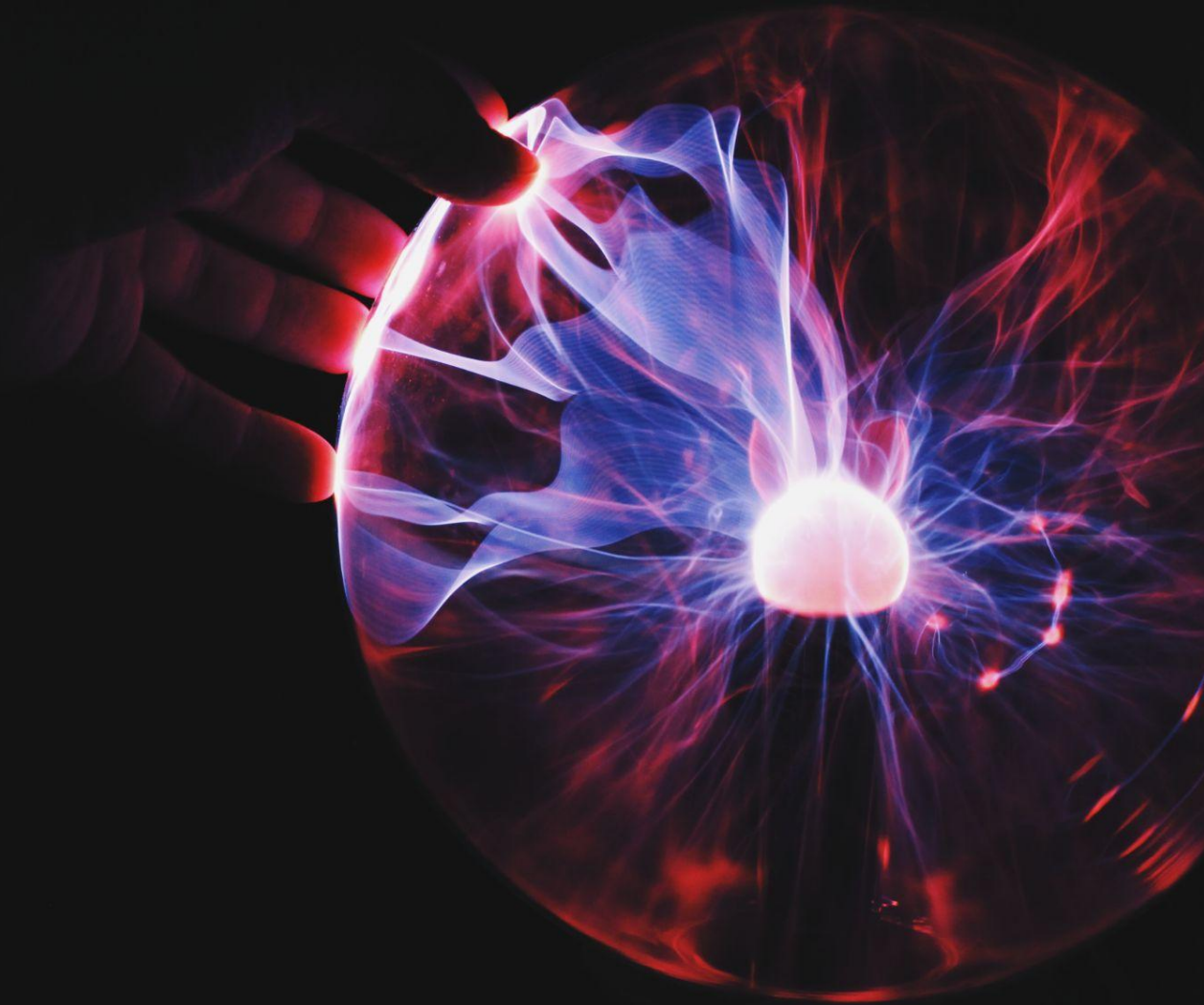


INPUT | OUTPUT

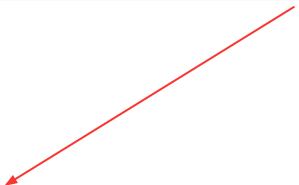
# Contexto de la Transacción



## Script Context: Qué contiene el contexto del script?


---

```
ScriptContext { transaction: Transaction, purpose: ScriptPurpose }
```



Información sobre la transacción que ejecuta el script/validador.

Igual para todos los validadores de la transacción (en caso de haber más de uno).



Ya hablamos de esto en clases anteriores.

Único para cada validador de la transacción.

## Contexto de la Tx: Qué contiene Transaction?

---

```
Transaction {  
  inputs: List<Input>,  
  reference_inputs: List<Input>,  
  outputs: List<Output>,  
  fee: Value,  
  mint: MintedValue,  
  certificates: List<Certificate>,  
  withdrawals: Pairs<StakeCredential, Int>,  
  validity_range: ValidityRange,  
  extra_signatories: List<Hash<Blake2b_224, VerificationKey>>,  
  redeemers: Pairs<ScriptPurpose, Redeemer>,  
  datums: Dict<Hash<Blake2b_256, Data>, Data>,  
  id: TransactionId,  
}
```

## Contexto de la Tx: Qué contiene Transaction?

---

```
Transaction {  
  inputs: List<Input>,  
  reference_inputs: List<Input>,  
  outputs: List<Output>,  
  fee: Value,  
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  certificates: List<Certificate>,  
  withdrawals: Pairs<StakeCredential, Int>,  
  validity_range: ValidityRange,  
  extra_signatories: List<Hash<Blake2b_224, VerificationKey>>,  
  redeemers: Pairs<ScriptPurpose, Redeemer>,  
  datums: Dict<Hash<Blake2b_256, Data>, Data>,  
  id: TransactionId,  
}
```

Lista de todos los  
UTxO que consume la  
transacción

## Contexto de la Tx: Qué contiene Transaction?

---

```
Transaction {  
  inputs: List<Input>,  
  reference_inputs: List<Input>,  
  outputs: List<Output>,  
  fee: Value,  
  mint: MintedValue,  
  certificates: List<Certificate>,  
  withdrawals: Pairs<StakeCredential, Int>,  
  validity_range: ValidityRange,  
  extra_signatories: List<Hash<Blake2b_224, VerificationKey>>,  
  redeemers: Pairs<ScriptPurpose, Redeemer>,  
  datums: Dict<Hash<Blake2b_256, Data>, Data>,  
  id: TransactionId,  
}
```

Lista de todos los  
UTxO que la Tx no  
consume pero puede  
ver

## Contexto de la Tx: Qué contiene Transaction?

---

```
Transaction {  
  inputs: List<Input>,  
  reference_inputs: List<Input>,  
  outputs: List<Output>,  
  fee: Value,  
  mint: MintedValue,  
  certificates: List<Certificate>,  
  withdrawals: Pairs<StakeCredential, Int>,  
  validity_range: ValidityRange,  
  extra_signatories: List<Hash<Blake2b_224, VerificationKey>>,  
  redeemers: Pairs<ScriptPurpose, Redeemer>,  
  datums: Dict<Hash<Blake2b_256, Data>, Data>,  
  id: TransactionId,  
}
```

Lista de los UTxO que  
la transacción crea

## Contexto de la Tx: Qué contiene Transaction?

---

```
Transaction {  
  inputs: List<Input>,  
  reference_inputs: List<Input>,  
  outputs: List<Output>,  
  fee: Value,  
  mint: MintedValue,  
  certificates: List<Certificate>,  
  withdrawals: Pairs<StakeCredential, Int>,  
  validity_range: ValidityRange,  
  extra_signatories: List<Hash<Blake2b_224, VerificationKey>>,  
  redeemers: Pairs<ScriptPurpose, Redeemer>,  
  datums: Dict<Hash<Blake2b_256, Data>, Data>,  
  id: TransactionId,  
}
```

Lo que hay que pagar  
al nodo por validar y  
procesar la Tx

## Contexto de la Tx: Qué contiene Transaction?

---

```
Transaction {  
  inputs: List<Input>,  
  reference_inputs: List<Input>,  
  outputs: List<Output>,  
  fee: Value,  
  mint: MintedValue,  
  certificates: List<Certificate>,  
  withdrawals: Pairs<StakeCredential, Int>,  
  validity_range: ValidityRange,  
  extra_signatories: List<Hash<Blake2b_224, VerificationKey>>,  
  redeemers: Pairs<ScriptPurpose, Redeemer>,  
  datums: Dict<Hash<Blake2b_256, Data>, Data>,  
  id: TransactionId,  
}
```

Tokens minteados y/o quemados en esta Tx



## Contexto de la Tx: Qué contiene Transaction?

---

```
Transaction {  
  inputs: List<Input>,  
  reference_inputs: List<Input>,  
  outputs: List<Output>,  
  fee: Value,  
  mint: MintedValue,  
  certificates: List<Certificate>,  
  withdrawals: Pairs<StakeCredential, Int>,  
  validity_range: ValidityRange,  
  extra_signatories: List<Hash<Blake2b_224, VerificationKey>>,  
  redeemers: Pairs<ScriptPurpose, Redeemer>,  
  datums: Dict<Hash<Blake2b_256, Data>, Data>,  
  id: TransactionId,  
}
```

Lista de certificados  
atestando una  
operación (registrar  
una pool, delegar,  
gobernanza...)

## Contexto de la Tx: Qué contiene Transaction?

---

```
Transaction {  
  inputs: List<Input>,  
  reference_inputs: List<Input>,  
  outputs: List<Output>,  
  fee: Value,  
  mint: MintedValue,  
  certificates: List<Certificate>,  
  withdrawals: Pairs<StakeCredential, Int>,  
  validity_range: ValidityRange,  
  extra_signatories: List<Hash<Blake2b_224, VerificationKey>>,  
  redeemers: Pairs<ScriptPurpose, Redeemer>,  
  datums: Dict<Hash<Blake2b_256, Data>, Data>,  
  id: TransactionId,  
}
```

Lista de pares que contienen credenciales de staking con los montos de Lovelace que están retirando en esta transacción

## Contexto de la Tx: Qué contiene Transaction?

---

```
Transaction {  
  inputs: List<Input>,  
  reference_inputs: List<Input>,  
  outputs: List<Output>,  
  fee: Value,  
  mint: MintedValue,  
  certificates: List<Certificate>,  
  withdrawals: Pairs<StakeCredential, Int>,  
  validity_range: ValidityRange,  
  extra_signatories: List<Hash<Blake2b_224, VerificationKey>>,  
  redeemers: Pairs<ScriptPurpose, Redeemer>,  
  datums: Dict<Hash<Blake2b_256, Data>, Data>,  
  id: TransactionId,  
}
```

Rango de tiempo  
durante el cual la Tx  
es válida

## Contexto de la Tx: Qué contiene Transaction?

---

```
Transaction {  
  inputs: List<Input>,  
  reference_inputs: List<Input>,  
  outputs: List<Output>,  
  fee: Value,  
  mint: MintedValue,  
  certificates: List<Certificate>,  
  withdrawals: Pairs<StakeCredential, Int>,  
  validity_range: ValidityRange,  
  extra_signatories: List<Hash<Blake2b_224, VerificationKey>>,  
  redeemers: Pairs<ScriptPurpose, Redeemer>,  
  datums: Dict<Hash<Blake2b_256, Data>, Data>,  
  id: TransactionId,  
}
```

Lista de hashes  
públicos que firmaron  
la transacción

## Contexto de la Tx: Qué contiene Transaction?

---

```
Transaction {  
  inputs: List<Input>,  
  reference_inputs: List<Input>,  
  outputs: List<Output>,  
  fee: Value,  
  mint: MintedValue,  
  certificates: List<Certificate>,  
  withdrawals: Pairs<StakeCredential, Int>,  
  validity_range: ValidityRange,  
  extra_signatories: List<Hash<Blake2b_224, VerificationKey>>,  
  redeemers: Pairs<ScriptPurpose, Redeemer>,  
  datums: Dict<Hash<Blake2b_256, Data>, Data>,  
  id: TransactionId,  
}
```

Lista de pares que contienen los propósitos de todos los scripts de la Tx con sus respectivos redeemers

## Contexto de la Tx: Qué contiene Transaction?

---

```
Transaction {  
  inputs: List<Input>,  
  reference_inputs: List<Input>,  
  outputs: List<Output>,  
  fee: Value,  
  mint: MintedValue,  
  certificates: List<Certificate>,  
  withdrawals: Pairs<StakeCredential, Int>,  
  validity_range: ValidityRange,  
  extra_signatories: List<Hash<Blake2b_224, VerificationKey>>,  
  redeemers: Pairs<ScriptPurpose, Redeemer>,  
  datums: Dict<Hash<Blake2b_256, Data>, Data>,  
  id: TransactionId,  
}
```

Diccionario que relaciona los hashes de datums con los datums adjuntados a la transacción

## Contexto de la Tx: Qué contiene Transaction?

---

```
Transaction {  
  inputs: List<Input>,  
  reference_inputs: List<Input>,  
  outputs: List<Output>,  
  fee: Value,  
  mint: MintedValue,  
  certificates: List<Certificate>,  
  withdrawals: Pairs<StakeCredential, Int>,  
  validity_range: ValidityRange,  
  extra_signatories: List<Hash<Blake2b_224, VerificationKey>>,  
  redeemers: Pairs<ScriptPurpose, Redeemer>,  
  datums: Dict<Hash<Blake2b_256, Data>, Data>,  
  id: TransactionId,  
}
```

Identificador único de la transacción. Hash de la transacción serializada

## Contexto de la Tx: Qué contiene Transaction?

---

```
Transaction {  
  inputs: List<Input>,  
  reference_inputs: List<Input>,  
  outputs: List<Output>,  
  fee: Value,  
  mint: MintedValue,  
  certificates: List<Certificate>,  
  withdrawals: Pairs<StakeCredential, Int>,  
  validity_range: ValidityRange,  
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  redeemers: Pairs<ScriptPurpose, Redeemer>,  
  datums: Dict<Hash<Blake2b_256, Data>, Data>,  
  id: TransactionId,  
}
```



# Fi

# n Preguntas ?



INPUT | OUTPUT