

# Some code template

Some shell code.

```
Prelude> import Vesting
Prelude Vesting> :set -XOverloadedStrings
Prelude Vesting> import Plutus.V2.Ledger.Api
Prelude Vesting Plutus.V1.Ledger.Api>
pkh1 = "cff6e39ec5b3cf84b1078976c98706b73774d2c5523af4daaf7c5109"
Prelude Vesting Plutus.V1.Ledger.Api>
printVestingDatumJSON pkh1 "2023-03-11T13:12:11.123Z"
{
  "constructor": 0,
  "fields": [
    {
      "bytes": "cff6e39ec5b3cf84b1078976c98706b73774d2c5523af4daaf7c5109"
    },
    {
      "int": 1678540331123
    }
  ]
}
```

Some shell code for a Marlowe contract.

```
When
  [Case
    (Deposit
      (Role "Alice")
      (Role "Alice")
      (Token "" "")
      (Constant 10)
    )
    (When
      [Case
        (Deposit
          (Role "Bob")
          (Role "Bob")
          (Token "" "")
          (Constant 10)
        )
        (When
          [Case
            (Choice
              (ChoiceId
                "Winner"
                (Role "Charlie")
              )
            )
          ]
        )
      ]
    )
  ]
```

```

        [Bound 1 2]
      )
    (If
      (ValueEQ
        (ChoiceValue
          (ChoiceId
            "Winner"
            (Role "Charlie"))
          ))
        (Constant 1)
      )
    (Pay
      (Role "Bob")
      (Account (Role "Alice"))
      (Token "" "")
      (Constant 10)
      Close
    )
    (Pay
      (Role "Alice")
      (Account (Role "Bob"))
      (Token "" "")
      (Constant 10)
      Close
    )
  )]
1682551111000 Close
)]
1682552111000 Close
)]
1682553111000 Close

```

Two haskell types.

```

data Data
  = Constr Integer [Data]
  | Map [(Data, Data)]
  | List [Data]
  | I Integer
  | B BS.ByteString
  deriving stock (Show, Read, Eq, Ord, Generic, Data.Data.Data)

newtype Value = Value
  { getValue :: Map.Map CurrencySymbol (Map.Map TokenName Integer)
  }
  deriving stock (Generic, Typeable, Haskell.Show)

```

Some Haskell code.

```

{-# LANGUAGE DataKinds           #-}
{-# LANGUAGE ImportQualifiedPost  #-}
{-# LANGUAGE NoImplicitPrelude   #-}
{-# LANGUAGE OverloadedStrings   #-}
{-# LANGUAGE TemplateHaskell     #-}

module FortyTwo where

import qualified Plutus.V2.Ledger.Api as PlutusV2
import      PlutusTx                (BuiltinData, compile)
import      PlutusTx.Builtins       as Builtins (mkI)
import      PlutusTx.Prelude        (otherwise, traceError, (==))

-----
----- ON-CHAIN / VALIDATOR -----

-- This validator succeeds only if the redeemer is 42
--          Datum          Redeemer      ScriptContext
mk42Validator :: BuiltinData -> BuiltinData -> BuiltinData -> ()
mk42Validator _ r _
  | r == Builtins.mkI 42 = ()
  | otherwise            = traceError "expected 42"
{-# INLINABLE mk42Validator #-}

validator :: PlutusV2.Validator
validator = PlutusV2.mkValidatorScript $(PlutusTx.compile
                                         [| mk42Validator |])

-----
----- HELPER FUNCTIONS -----

saveVal :: IO ()
saveVal = writeValidatorToFile "./redeemer42.plutus" validator

```

I'm referring to the `mkGiftValidator` function and the `BuiltinData` data type.

Some typescript code.

```

import {
  Data,
  Lucid,
  Blockfrost,
} from "https://deno.land/x/lucid@0.9.1/mod.ts"
// create a seed.ts file with your seed
import { secretSeed } from "./seed.ts"

// set blockfrost endpoint
const lucid = await Lucid.new(
  new Blockfrost(
    "https://cardano-preview.blockfrost.io/api/v0",

```

```

    "insert your own api key here"
  ),
  "Preview"
);

// load local stored seed as a wallet into lucid
lucid.selectWalletFromSeed(secretSeed);
const addr: Address = await lucid.wallet.address();
console.log(addr);

// An asynchronous function that sends an amount of Lovelace to the script
// with the above datum.
async function vestFunds(amount: bigint): Promise<TxHash> {
  const dtm: Datum = Data.to<VestingDatum>(datum,VestingDatum);
  const tx = await lucid
    .newTx()
    .payToContract(vestingAddress, { inline: dtm }, { lovelace: amount })
    .complete();
  const signedTx = await tx.sign().complete();
  const txHash = await signedTx.submit();
  return txHash
}

console.log(await vestFunds(100000000n));

```