

# 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 = "cfff6e39ec5b3cf84b1078976c98706b73774d2c5523af4daaf7c5109"
Prelude Vesting Plutus.V1.Ledger.Api>
printVestingDatumJSON pkh1 "2023-03-11T13:12:11.123Z"
{
  "constructor": 0,
  "fields": [
    {
      "bytes": "cfff6e39ec5b3cf84b1078976c98706b73774d2c5523af4daaf7c5109"
    },
    {
      "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 TemplateHaskell     #-}

module Gift where

import qualified Plutus.V2.Ledger.Api as PlutusV2
import      PlutusTx                (BuiltinData, compile)
import      Prelude                  (IO)
import      Utilities                (writeValidatorToFile)

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

-- This validator always succeeds
--          Datum          Redeemer      ScriptContext
mkGiftValidator :: BuiltinData -> BuiltinData -> BuiltinData -> ()
mkGiftValidator _ _ _ = ()
{-# INLINABLE mkGiftValidator #-}

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

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

saveVal :: IO ()
saveVal = writeValidatorToFile "gift.plutus" validator

```

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(1000000000n));

```