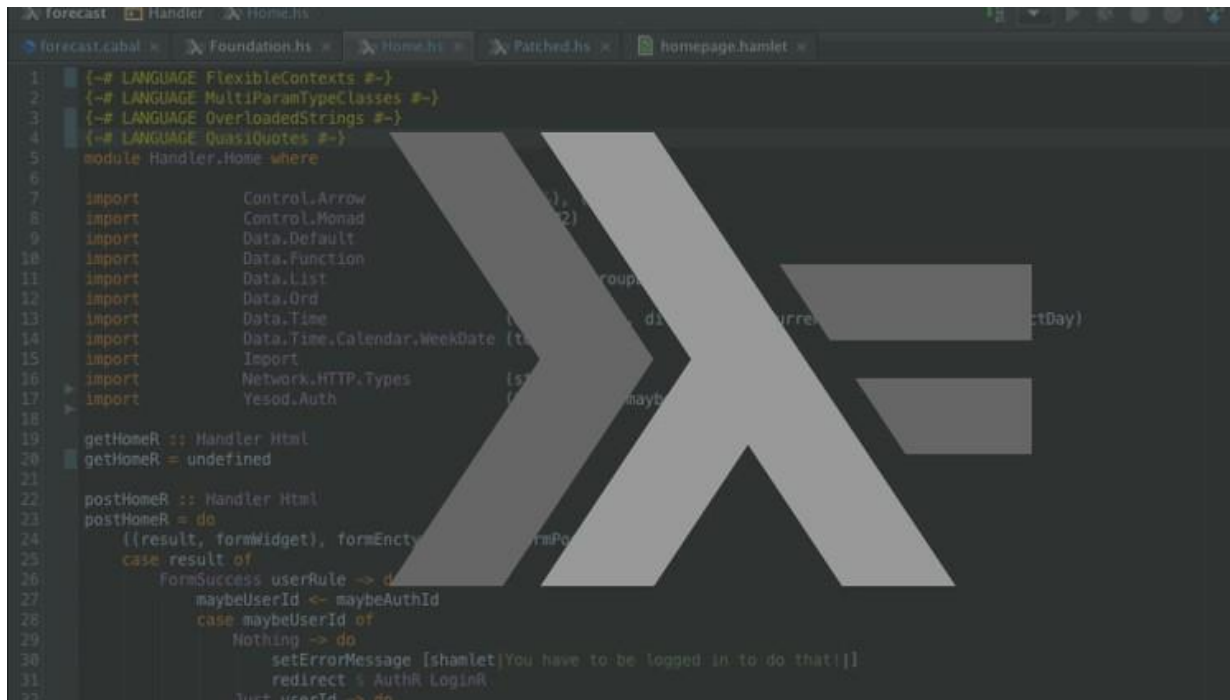


Higher Order Functions Problems



```
1 {-# LANGUAGE FlexibleContexts #-}
2 {-# LANGUAGE MultiParamTypeClasses #-}
3 {-# LANGUAGE OverloadedStrings #-}
4 {-# LANGUAGE QuasiQuotes #-}
5 module Handler.Home where
6
7 import Control.Arrow
8 import Control.Monad
9 import Data.Default
10 import Data.Function
11 import Data.List
12 import Data.Ord
13 import Data.Time
14 import Data.Time.Calendar.WeekDate
15 import Import
16 import Network.HTTP.Types
17 import Yesod.Auth
18
19 getHomeR :: Handler Html
20 getHomeR = undefined
21
22 postHomeR :: Handler Html
23 postHomeR = do
24   ((result, formWidget), formEnctype) <- runFormPost
25   case result of
26     FormSuccess userRule -> do
27       maybeUserId <- maybeAuthId
28       case maybeUserId of
29         Nothing -> do
30           setErrorMessage [shamlet|You have to be logged in to do that!|]
31           redirect % AuthR.LoginR
32         Just userId -> do
```

Problem 4

Implement a function *powersOf2* :: [Int] that generates the list of all the powers of 2.

Input

Output

take 5 powersOf2

-> [1,2,4,8,16]

take 3 powersOf2

-> [1,2,4]

take

```
λ> take 3 [1 .. 7]  
↵ [1, 2, 3]
```

iterate

```
λ> iterate (*2) 1  
↳ [1, 2, 4, 8, 16, ...]
```

Instructor Youtube Channel: Lucas Science

