Hazel PHI: 10-modules

how to read

syntax

$$
\begin{array}{rrll}
\text{kind} & knd & ::= & \texttt{Type} & \text{kind of types} \\
& & | & \texttt{S}(\tau) & \text{singleton kind} \\
& & | & \texttt{KHole} & \text{kind hole} \\
& & | & \Pi_{\alpha::knd_1}.knd_2 & \text{dependent function kind} \\
& & | & \Sigma_{\alpha::knd_1}.knd_2 & \text{dependent product kind} \\
\text{base type} & bse & ::= & \texttt{Int} \\
& & | & \texttt{Float} \\
& & | & \texttt{Bool} \\
\text{HTyp BinOp} & \oplus & ::= & \times \\
& & | & + \\
& & | & \to \\
\text{internal HTyp} & \tau & ::= & bse \\
& & | & \lambda\alpha :: knd.\tau \\
& & | & \tau_1\ \tau_2 \\
& & | & \tau_1 \oplus \tau_2 \\
& & | & \langle \tau_1, \tau_2 \rangle \\
& & | & \pi_1\ \tau \\
& & | & \pi_2\ \tau \\
& & | & \{ lab_1 \hookrightarrow \tau_1, ...\ lab_n \hookrightarrow \tau_n \} \\
& & | & mod.lab \\
& & | & (\!|\!) \\
& & | & (\!|\tau|\!) \\
\text{module} & mod & ::= & [sbnd] \\
& & | & \lambda\mu :: sig.mod \\
& & | & mod_1\ mod_2 \\
& & | & mod.lab \\
\text{signature} & sig & ::= & \\
& & | & \Pi_{\mu::sig_1}.sig_2 \\
\end{array}
$$