Give A the discrete topology, for open $U \subset X$,
let $\mathcal{A}(U)$ the group of all continuous maps of U into A.
$\Rightarrow$ For every connected open U, $\mathcal{A}(U) \cong A$. whence the name. "constant sheaf." $\mathcal{A}(U_1 \cup U_2) \cong A \times A$. direct product

② On any C^∞-manifold M, we define sheaves C^∞. C^*. $\mathcal{A}^p$. $\mathcal{Z}^p$. $\mathbb{Z}$, $\mathbb{Q}$. $\mathbb{R}$ and $\mathbb{C}$ by

$C^\infty(U) =$ C^∞-functions on U.
$C^*(U) =$ multiplicative group of non-zero C^∞-functions on U.
$\mathcal{A}^p(U) =$ C^∞- p-forms on U.
$Z^p(U) =$ closed C^∞ p-forms on U. $\nearrow$ $\exists$ open connected set s.t. $\mathcal{F}(U) \cong \mathbb{Z}, \cdots Q$.
$\mathbb{Z}(U)$, $\mathbb{Q}(U)$, $\mathbb{R}(U)$, $\mathbb{C}(U)$ = locally constant $\mathbb{Z}$-, $\mathbb{Q}$, $\mathbb{R}$ or $\mathbb{C}$-valued functions on U.

③ M complex manifold $V \subset M$ analytic subvariety of M.
$E \longrightarrow M$: holomorphic vector bundle,
we define the sheaves $\mathcal{O}$. $\mathcal{O}^*$. Ω^p. $\mathcal{A}^{p,q}$ $Z_{\bar\partial}^{p,q}$. $\mathcal{J}_V$. $\mathcal{O}(E)$, and $\mathcal{A}^{p,q}$ by

$\mathcal{O}(U) =$ holomorphic functions on U
$\mathcal{O}^*(U) =$ multiplicative group of non-zero holomorphic functions on U
$\Omega^p(U) =$ holomorphic p forms on U.
$\mathcal{A}^{p,q}(U) =$ C^∞ forms of type (p,q) on U

$Z_{\bar\partial}^{p,q}(U) = \bar\partial$-closed C^∞ forms of type (p,q) on U
$\mathcal{J}_V(U) =$ holomorphic functions on U vanishing on $V \cap U$.

$\mathcal{O}(E)(U) =$ holomorphic sections of E over U
$\mathcal{A}^{p,q}(E)(U) =$ C^∞ E-valued (p,q) forms over U.