

Assignment 2.16.

(\mathbb{N}, \geq) .

is a cpo with top element 0
for the chain

$$\dots \geq n \geq \dots \geq 2 \geq 1 \geq 0$$

any of its chains has a lub.

so (\mathbb{N}, \geq) is a cpo.

But since $+\infty$ is not contained in the
set. so there exist subset from the
set that don't have glb.

As a result. (\mathbb{N}, \geq) is not a
complete lattice.