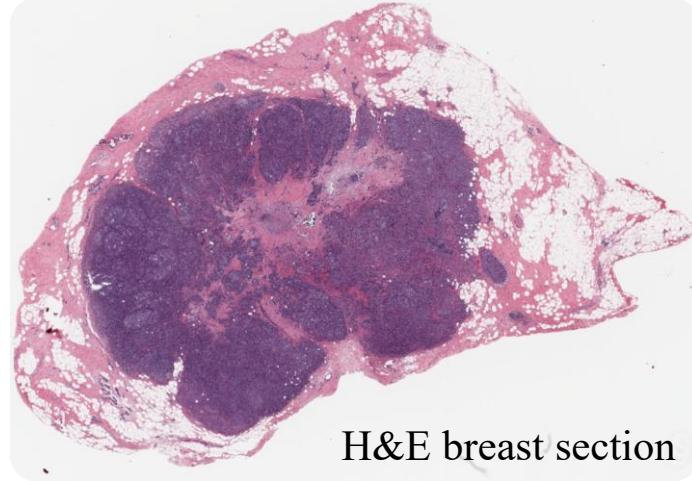


Question: What nuclear grade in the cells of the invasive ductal carcinoma in the provided WSI?



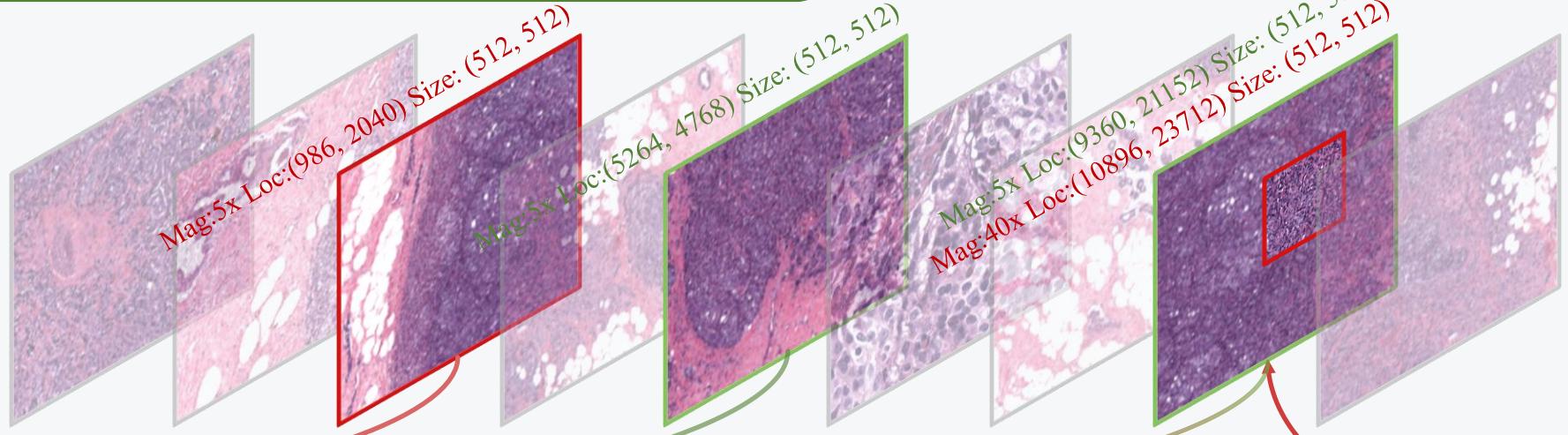
H&E breast section



Navigator

Round-1
Retrieve RoIs from WSI using Question

Tiles in the WSI



Perceptor

Generate Question-oriented Captions

- Round-1 5x (9360, 21152): Dense texture and strong granularity suggest high tumor cell density.
- Round-1 5x (5264, 4768): Tumor nests or high-cellularity areas coexist with stromal reactions.
- Round-2 5x (986, 2040): High-density malignant epithelioid cell population.
- Round-2 40x (10896, 23712): High-density malignant epithelioid cell population.



Executor

Self-Reflective Reasoning

Predict Answer

Round-1: Grade II/III Round-2: Grade III/III



Self Reflect Sufficient?
Round-1: Not Sufficient Round-2: Sufficient



Explore Missing Information
Round-1: Zoom in the tumor regions at 40x ...



Navigator

Answer: Grade III/III

Retrieve RoIs

Round-2

“Morphology and distribution of cancer cells in the region with high tumor cell density.”

Yes

NO