Slide 1:

hello everyone i am deeksha from group 390 today i am going to demonstrate the stale fruit detection using swin transformer

we are trying to achieve a fruit quality detection system to identify and classify the quality of fruits using image analysis with the help of technologies like CNN, VIT and swin transformer

this system helps us in ensuring fruit quality and safety, assisting suppliers, retailers, and consumers in choosing high-quality produce

Slide 2:

The existing system comes with certain challenges, like

* data privacy: uploaded images may unintentionally reveal sensitive details about users, leading to data leaks
* skill gap for users: users may lack the necessary understanding of AI or machine learning concepts, making it challenging to operate the system effectively, the third challenge is
* ensuring data set of wide range of fruit types, sizes, conditions (ripe, overripe etc), in multiple lightning and background conditions is a challenging task along side ensuring that the images are accurately labeled with quality ratings which can be subjective

considering the mentioned challenges, our model aims to solve these problems and come up with increased consistency & efficiency helping us reduce the manual inspection time which in turn helps us in detecting early spoilage of fruits

this also helps distributors in improving better business scaling with quality fruit assurance

Slide 3:

once user provides raw data set to the model, image preprocessing enhances the visual quality of the image by increasing contrast, reducing noise, sharpening edges or colour collection

the end users of the model will be farmers, distributors, retailers and consumers where our focus will be on distributors

* The system integrates several technologies to create an efficient fruit quality detection solution that enhances agricultural practices by providing accurate quality assessments through image analysis.