

## Project Initialization and Planning Phase

<b>Date</b>	14 June 2025
<b>Team ID</b>	SWTID1749876754
<b>Project Name</b>	SynapseScan – AI Driven Classification of Ovarian Cancer Variants
<b>Maximum Marks</b>	3 Marks

### Problem Statement:

Ovarian cancer diagnosis poses critical challenges in early detection, personalized treatment, and research progression. Patients often face delays in diagnosis due to subtle, hard-to-detect variants. Additionally, oncologists require accurate classification of these variants to personalize treatments effectively. Researchers also struggle with time-consuming manual classification of large datasets. SynapseScan addresses these pain points by leveraging transfer learning and AI-driven classification techniques. By automating and enhancing the identification of ovarian cancer variants from medical imaging data, this project empowers early detection, facilitates tailored treatment plans based on individual genetic profiles, and accelerates oncology research. Through this initiative, we aim to improve diagnostic accuracy, optimize treatment efficacy, and speed up scientific discoveries in the field of ovarian cancer.

<b>Problem Statement (PS)</b>	<b>I am (Customer )</b>	<b>I'm trying to</b>	<b>But</b>	<b>Because</b>	<b>Which makes me feel</b>
PS-1	A patient at risk of ovarian cancer	Get diagnosed at an early stage	The symptoms and variants are hard to identify	Ovarian cancer presents subtle, complex patterns	Worried and uncertain about timely diagnosis
PS-2	An oncologist	Create personalized treatment plans	Variant classification is inconsistent	Manual processes lack precision and are time-consuming	Frustrated and limited in treatment optimization
PS-3	A cancer researcher	Analyze large datasets to discover patterns	Manual classification is slow	Ovarian cancer data is complex and vast	Restricted in research productivity