

Thank you for clarifying that you don't have a specific deadline for your project.

Now, let's summarize the information you've provided to ensure we have a clear understanding of your project.

Summary of Your Project:

You are working on designing and implementing an automatic brain tumor detection system in the medical science domain. As a beginner in AI, you aim to utilize AI for fast, accurate, and automated detection of brain tumors using a dataset of 1,500 labeled MRI images in DICOM format. The images are organized in a folder and labeled as either "tumor present" or "tumor not present." You plan to evaluate the system's performance using metrics such as accuracy, precision, recall, F1 score, and root mean square error, with a tolerance for misclassification of 7 to 10%. Privacy considerations are important, as the dataset must be protected. The intended users of the system are medical professionals and researchers, and you do not have a specific timeline for the project.

Structured JSON Object:

```
```json
{
 "project": {
 "domain": "Medical Science",
 "experience_level": "Beginner",
 "goals": "Design and implement an automatic brain tumor detection system.",
 "reason_for_using_AI": "AI enables fast, accurate, and automated detection of brain tumors.",
 "current_solution": "Classical machine learning approaches.",
 "data": {
 "type": "MRI images",
 "format": "DICOM",
```

```
"distribution": "Historical collection",
"storage": "Stored in a folder",
"size": 1500,
"labeled": true,
"labeling_method": "Tumor present or not present",
"known_issues": "No issues"
},
"task": {
 "expected_output": "Classify images as tumor present or not present.",
 "evaluation_metrics": [
 "accuracy",
 "precision",
 "recall",
 "F1 score",
 "root mean square error"
],
 "error_tolerance": "7 to 10%"
},
"constraints": {
 "privacy": "Protect the privacy of the dataset.",
 "legal_regulatory": "None specified",
 "ethical_concerns": "None specified"
},
"intended_users": [
 "Medical professionals",
 "Researchers"
```

```
],
 "timeline": "No specific deadline"
}
}
` ``
```

If you have any additional information or questions, feel free to share!