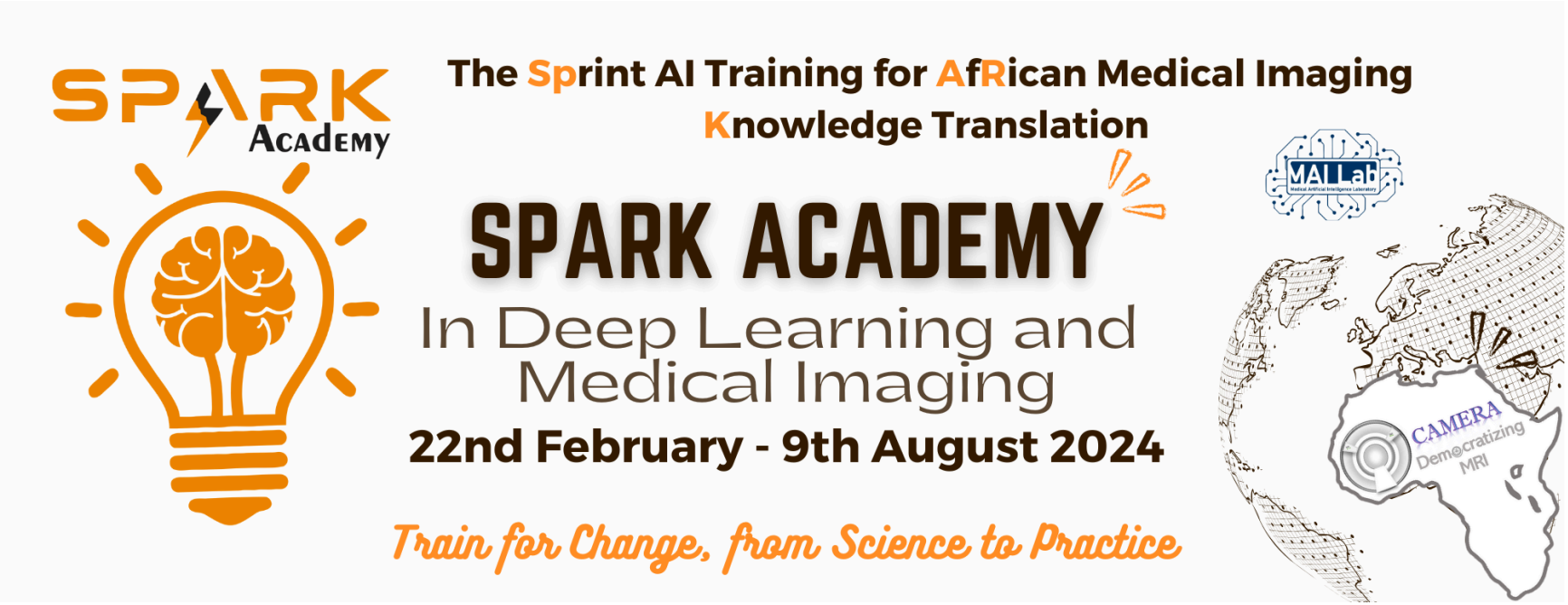

SPARK 3rd BraTS-Africa BrainHack
Code Hack & Team Exercise Tasks

Instructions:

1. Use the **Code Hack Session** to run your chosen model's code on Kaggle and produce results that are similar to the reported model's performance.

2. Use the **Team Exercise Session** to work on the Capstone Project presentation or to continue to hack your code (i.e., the Code Hack Session).

3. **Capstone Project** Presentation: 5-minute presentation of the team's model implementation, performance and lesson learned.

Daily Activities:

Day	Code Hack Task and Team Exercise
Monday	**Project planning and data acquisition** ● Review Model's method paper: *Each team can choose to work with the papers and GitHub repositories shared during the foundational course (**for Unet, UNnetr, nnUnet, SwinUnetr, and GAN**) to review each paper and code and choose a model to use.* ● Review the model's code in Kaggle **Deliverables:** *1-page Report* ● Submit a summary of the model paper outlining: ○ Motivation for your model selection ○ **Model Details:** Name, Architecture (figure or table) ○ Identify model deficiencies & outline strategies to address them. ○ Start Preparing your 5-Minute Capstone Presentation (***See details on day 5***) ● **Submit Mid-program evaluation** ● Each member of the team individually completes the Mid-training survey here **https://forms.gle/WdR4nqqafzzCA2Sz6**
Tuesday	**Data Exploration and Preprocessing** ● Download Data set from Cancer archive and TCIA (2021) **https://www.kaggle.com/datasets/dschettler8845/brats-2021-task1** ● Perform exploratory data analysis ● Preprocess data for and design data loader for model training ● Transfer code from Github repo to kaggle ● Start training model **Deliverables:** *1-page Report* ● Outline any challenges faced in implementing the model ● Continue working on your 5-Minute Capstone Presentation (***See details on day 5***)
Wednesday	**Model Selection and Training** ● Continue training your chosen model on 2024 BraTS data

	• Implement ways to improve the model **Deliverables:** *1-page Report* • Report preliminary results from model training • Report model performance with the implementation of new strategies • Outline any challenges faced in implementing the model • Continue working on your 5-Minute Capstone Presentation (***See details on day 5***)
Thursday	**Model Training, Validation and Evaluation** • Continue training your chosen model on 2024 BraTS data • Compare your results with the model's reported (published) results **Deliverables:** *1-page Report* • Update results from model training • Update Identified model deficiencies & outline strategies to address them. • Continue working on your 5-Minute Capstone Presentation (***See details on day 5***)

Friday	**Model Evaluation and Optimization**
	• Finalize any remaining model training evaluation
	• Add updated results to the 5-Minute Capstone Presentation
	
	Deliverables:
	Capstone Presentation
	• *5-Minutes no more than 8 slides*
	• *Present a summary of:*
	  ○ *The motivation for choosing the model includes the advantages of the method*
	  ○ *The model architecture*
	  ○ *Outline any observed or suspected model deficiencies*
	  ○ *Results - performance of the model and if performance was replicated*
	  ○ *Challenges faced in implementing the model*
	  ○ *Introduce the proposed BraTS 2025 Challenge model*