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Sprint Log

Before 04/05

Task	Done	In-Progress	To Do
Setting up the docker environment	X		
Exercises in haskell	X		
Exercises in GpH	X		
Creation of the GitHub repository	X		
Optimisation of the algorithm computing the sum of Euler totient computations in parallel	X		
Sequential and parallel profiling, runtine measurements	X		
Setting up threadscope	X		
Sequential implementation of the resultant			X
Create runtime graphs			X
File discussing performance information			X
Sprint Log file at the top level of the repository			X
Try to execute GpH program on MACS Linux severs			X

05/05 – 11/05

Task	Done	In-Progress	To Do
Sequential implementation of the resultant		X	
Create runtime graphs		X	
File discussing performance information		X	
Try to execute GpH program on MACS Linux severs	X		
Familiarization with python scripts to call command line functions and get their results	X		
Sprint Log file at the top level of the repository			X
Execute the Sum Euler on 64-cores servers			X

12/05 – 18/05

Task	Done	In-Progress	To Do
Sequential implementation of the resultant	X		
Create runtime graphs		X	
File discussing performance information		X	
Sprint Log file at the top level of the repository		X	
Execute the Sum Euler on 64-cores servers		X	
Implementation of the univariate resultant using the determinant of the Sylvester Matrix and PLU decomposition	X		
Implementation of the univariate resultant using a recursive algorithm and Euclidean division	X		
License added to the start of the code	X		
Performance analysis of the sequential Resultant			X
Implement the Laplace expansion			X

19/05 – 25/05

Task	Done	In-Progress	To Do
Create runtime graphs	X		
File discussing performance information		X	
Sprint Log file at the top level of the repository	X		
Execute the Sum Euler on 64-cores servers	X		
Performance analysis of the sequential Resultant		X	
Implement the Laplace expansion			X
Creation of a python script allowing to create productivity and runtime graphs	X		
Sprint Log file improved	X		
Introduce parallelism into the PLU and Laplace algorithms			X

26/05 – 01/06

Task	Done	In-Progress	To Do
File discussing performance information		X	
Performance analysis of the sequential Resultant	X		
Implement the Laplace expansion	X		
Introduce parallelism into the PLU and Laplace algorithms	X		
Profiling of the sequential and parallel algorithms	X		
Runtime and productivity graphs for both versions	X		
Create a runtime/speedup graph with the same input data for all 3 algorithms			X
Introduce parallelism into the Sequential Recursive algorithm			X
Extend the Recursive algorithm to the multivariate case			X