basecalling, quality control, quality filtering demultiplex, trim barcodes and basecalling reads basecalled raw data adapters [Guppy] data (.fastq) [Guppy] (.fast5) (.fastq) filter reads based on quality [Guppy] filtered reads (.fastq) QC quality control [NanoPlot] reports (.html) assembly de novo assembly [Flye] repeat contigs info graphs (.fasta) (.txt) (.gfa) mapping assembly polishing indexed and sorted .bam file [Medaka] (.bam) annotation annotate contigs [tool]