**Permanent files:**

**Step1.1 Quality Statistics generation and bad read filtering**

* \*\_stat
* \*.html,
* 6 plots for each fastq file\*\_avgQual.png, \*\_baseCompostion.png, \*\_QualRangePerBase.png, \*\_ gcDistribution.png, \*\_ qualDistribution.png, \*\_ QualRangePerBase.png,
* \*\_summary.png (summary plot)

**Step 1.2 Quality based trimming of filtered files**

* read1.fastq\_filtered\_trimmed
* read2.fastq\_filtered\_trimmed

**Step3.1: Picard SortSam.jar**

* aln.bam
* aln.bai

**Step3.5: Base Quality Recalibration Part I**

* Pre\_recal\_data.pdf

**Step 3.5: Base Quality Recalibration Part II**

* Post\_recal\_data.pdf

**Step3.5: Base Quality Recalibration Part III**

* realigned\_BQSR.bam
* realigned\_BQSR.bai

**Step 3.6: Picard CalculateHsMetrics**

* Metricsfile.txt

**Step 4: Variant Calling**

* variants.raw.vcf
* variants.raw.vcf.idx

**Step 5.2: Recalibrate SNP**

* \*.PDF plots files; \*.recal

**Step 5.3: Apply SNP recalibration**

* SNP.recalibrated.filtered.vcf
* SNP.recalibrated.filtered.vcf.idx

**Step 5.5: Recalibrate Indel**

* \*.PDF plots files; \*.recal

**Step 5.6: Apply Indel recalibration**

* INDEL.recalibrated.filtered.vcf
* INDEL.recalibrated.filtered.vcf.idx