**Schedule Adherence:-**

**Application Layer :-**

**User will Provided Two API**

**1)GenerateReportAtVariousLevel:- This API will generate Report of Deviation at each ReportLevel and Duration.**

**12 Files will be generated each representing a ReportLevel and Duration .**

**Real time report be generated i.e. Consider report of Monthly duration and User level we can include present day deviation into Day before monthly deviation and exclude the (present day-30 )day 's deviation and divide with 30 generating a continuous monthly report level over a period of time in minimal time complexity. This technique of generating report by making use of previous day monthly report is Dynamic Programming.**

**Generating Report on Daily basis dont involve real time report it need to generated on request. It can maintained from previous day's report .**

**2)GenerateReportAtParticularLevel:-**

**User will provide the report level and Duration of report to be generated and a file of continuous report will be generated.**

**The Application layer will take interact with User and take the input data from user and Interact with data acess layer supplying input to data acess Layer.Data acess layer will directly interact with the data base and input data will be loaded into the data base.**

**2. Repository Layer:-**

**This layer interacts with the data acess layer and reposible for the calculation of Deviation at various Report Levels and Duration.It fetches the data from data base for calculation of deviation.**

**3. Data Acess Layer:-**

**First the input data is uploaded from Actual Schedule File and Planned Schedule File into database tables. This layer will fetch the data from data base when repository layer calculates deviation.**

