Overview of the design:

I have used Spring Web dependency for Rest API.

SantaHoodFillerController : I have created a Controller class which would expose the end point “/hoodfiller”.

The endpoint would take request in the below format:

{"hood\_capacity": 41,

"present\_weights": [2, 5, 10, 50, 100]

}

Response is provided in below format:

{

    "minimunPresents": [

        2,

        2,

        2,

        5,

        10,

        10,

        10

    ]

}

SantaHoodFillerService: This class contains the business logic to calculate the minimum number of items a to preserve elven back.

SantaHoodFillerRequest: This class represent the request format, which contains hood capacity and present weights.

SantaHoodFillerResponse : This class represent the response format which contains the output of the request which is minimunPresents.

Created a docker file in the path which contains the below content:

FROM openjdk:11

EXPOSE 8080

ADD target/santahoodfiller-0.0.1-SNAPSHOT.jar santahoodfiller.jar

ENTRYPOINT ["java","-jar","/santahoodfiller.jar"]