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Portfolio optimization has been one of the important research fields in financial decision making. The most important character within this optimization problem is the uncertainty of the future returns. To handle such problems, we utilize probabilistic methods alongside with optimization techniques. We develop single stage and two stage stochastic programming with recourse for risk-averse investors and the objective of the stochastic programming models is to minimize the mean absolute negative deviation. We use the so-called "Here-and-Now" approach where the decision-maker makes decision "now" before observing the actual outcome for the stochastic parameter. We compare the optimal portfolios between the single stage and two stage models that hedge against the risk of investment. These models are applied to the optimal selection of stocks listed in Bursa Malaysia and the return of the optimal portfolio is compared between the two stochastic models. The results show that the optimal portfolios of the two stage model out performs the single stage model. (Received August 29, 2008)