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**COURSE NAME : Software Verification And Validation**

**A:** Choose any testing tool from the list , and write down its

**a:** pros/ cons

**b:** functionality

**c:** Supporting Languages

**d:** Supporting Tests

**e:** Write a short(faulty) code, Test using this tool , and show the bugs in the code.

## **LOAD RUNNER**

**ANSWER a:**

### **Pros:**

- The ease with which the Test scripts can be recorded. Tests run and results analyzed when simultaneous users are accessing the application
- Easy integration with the other HP suite tools
- Ease of creating Virtual Users to run the test cases and even no limitation on the number of VUsers
- Extensive vendor documentation and help system included
- Load Runner can work with most Enterprise Resource Planning Systems

### **Cons:**

- The tool cost is a bit more expensive when compared to other tools and it is a bit difficult for the first-time installation.
- Though good support is available from the HP team, it's expensive if 24x7 support is required

- Too much RAM resource is required for the tool to work efficiently to avoid crashing of application
- It takes a lot of time in scripting and it is an even more complex job when the application build is changing frequently

**ANSWER b:**

**Functionality:**

**1. Ir\_eval\_string():**

This function return the input string after evaluating any embedded parameters.

**2. Ir\_eval\_string\_ext():**

This function create a buffer and assigns it to the input string after evaluating the embedded parameters.

**3. Ir\_save\_string():**

This function assigns a value to the LR parameter/ variable.

**4. Ir\_save\_int():**

This function assigns an integer to an LR parameter.

**5. Ir\_paramarr\_random():**

This function randomly selects one of the values from a parameter array.

## **ANSWER c:**

### **Supporting Languages:**

LoadRunner clients are usually created using the ANSI C programming language. However Java and Net programs can also be run by LoadRunner. LoadRunner 12.50 added the use of JavaScript for Web-HTTP/HTML support.

## **ANSWER d:**

### **Supporting Tests:**

- Support from other testing tools such as Apache JMeter, NUnit, and Selenium can be run by LoadRunner by declaring an interface library. This enables support to send key value pairs to the Controller as the script runs, enabling response times to be associated with specific conditions such as the number of items displayed in the User Interface.
- LoadRunner 12.55 enables testers to run Apache Jmeter scripts from Controller, alongside Vuser scripts can view the results to LoadRunner measurements.

## **ANSWER e:**

### **To show bugs in the code:**

## Errors in Load Runner

```
char * FlightVal;

web_reg_save_param("outFlightVal",

"LB=outboundFlight value=", "RB=>",

"ORD=ALL",

"SaveLen=18",

LAST );

web_submit_form("reservations.pl",

"Snapshot=t4.inf",

ITEMDATA,

"Name=depart", "Value=London", ENDITEM,

"Name=departDate", "Value=11/20/2003", ENDITEM,

"Name=arrive", "Value=New York", ENDITEM,

"Name=returnDate", "Value=11/21/2003", ENDITEM,

"Name=numPassengers", "Value=1", ENDITEM,

"Name=roundtrip", "Value=", ENDITEM,

"Name=seatPref", "Value=None", ENDITEM,

"Name=seatType", "Value=Coach", ENDITEM,
```

```
"Name=findFlights.x", "Value=83", ENDITEM,  
"Name=findFlights.y", "Value=16", ENDITEM,  
LAST );  
}
```