BANGALORE UNIVERSITY

2014-2015

VI SEMESTER BCA PROJECT GUIDE LINES

**LIST OF BROAD AREAS OF APPLICATION AND RELATED TOOLS**

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| **FRONT END / GUI Tools :** | Visual Studio, Power Builder, Oracle Developer 2000,VC++, Jbuilder |
| **RDBMS/BACK END :** | Oracle, Sybase, Progress, SQL Plus, MY SQL, SQL Server, DB2 |
| **LANGUAGES :** | C, C++, Java, VC++, C# |
| **SCRIPTING LANGUAGES :** | PERL, SHELL Scripts(Unix) |
| **MIDDLE WARE (COMPONENT) TECHNOLOGIES :** | COM/DCOM, Active-X, EJB, Rational Rose, MSMQ, BEA, Message Q, MTS, CICS |
| **UNIX INTERNALS :** | Device Drivers, Pipes, RPC, Threads, Sockets |
| **ARCHITECTURAL CONCEPTS :** | CORBA, TUXEDO |
| **INTERNET TECHNOLOGIES :** | DHTML, Java script, VB Script, Perl & CGI script, HTML 5, Java, Active X, RMI, CORBA, SWING, JSP, ASP, XML, EJB, Java Beans, Java Servlets, Visual Age for JAVA, UML, VRML, WML, iPlanet, ATG, BigTalk, CSS, XSL, Oracle ASP server, VB.Net, AWT, J2EE, LDAP, ColdFusion |
| **NETWORKING TECHNOLOGIES :** | ATM, Frame Relay, TCP/IP, SNMP, GSM, VoIP, PPP, IP-PSTN, SONET/SDH |
| **WIRELESS TECHNOLOGIES :** | Blue Tooth, 3G, ISDN, EDGE |
| **REALTIME OPERATING SYSTEM/ EMBEDDED SKILLS :** | QNX, LINUX, OSEK, DSP, VRTX, RTXC, Nucleus |
| **OPERATING SYSTEMS :** | WINDOWS 95/98/2000/ME, WINDOWS NT, UNIX, LINUX, IRIX, SUN SOLARIS, HP/UX, PSOS, VxWorks, AS400, AIX, WINDOWS XP, DOS |
| **MOBILE APPLICATION DEVELOPMENT TECHNOLOGIES** | Android, iPhone( iOS) and SQLite. |
| **APPLICATIONS :** | Financial/ Manufacturing/ Multimedia/ Computer Graphics/ Instructional Design/ Database Management System/ Internet/ Intranet/ Computer Networking-Communication Software/E-Commerce/ ERP / MRP/ TCP/IP Internals/ Routing protocols/ Socket Programming/ Implementation of Switches & Routers |

***Note: Projects should not be developed using the packages like Dbase, Foxpro, Visual Foxpro. Also, projects should not be developed using the combination of Visual Basic as the front end and MS-Access as the back end.***

**CONTENTS OF THE PROJECT REPORT**

The project report must contain the following:

* Introduction
* Objectives
* Tools/Environment Used
* Analysis Document (This should include SRS in proper structure based on Software Engineering concepts, E-R diagrams/Class diagrams/any related diagrams Data flow diagrams/other similar diagrams, Data dictionary)
* Design Document (Modularization details, Data integrity & constraints including database design, Procedural design, User interface design)
* Program code (Complete code (well indented)/Detailed specification instead of code, Comments & Description. The program code should always be developed in such a way that it includes complete error handling, passing of parameters as required, placement of procedure/function statements as needed.)
* Testing (Test case designs are to be included separately for Unit testing, Integration testing, System testing; Reports of the outcome of Unit testing, Integration testing, System testing are to be included separately. Also, details of debugging and code improvement are to be included.)
* Input and Output Screens
* Conclusion, Future Application/enhancement of the Project
* Bibliography

Maximum team size can be 3 students. In viva-voce the questions must be directed only on the project work to access the involvement and understanding of the problem by the students.

The project carries 200 marks and is distributed as follows:

* Demonstration and Presentation :100 Marks
* Verification and Validation :40 Marks
* Viva-voce :40 Marks
* Project Report :20 Marks

Students who have done their project for any organization are permitted to attach detailed algorithm/specification instead of code, in case, the organization doesn’t permit them to attach the code. **Students have to collect data outside practical hours. Project may be taken outside but must be implemented in the college**. Student needs to attach letter in the project report from the Project Manager of the project in the organization that they are not permitting student to attach the code. In the absence of such letter, the student needs to attach the code compulsorily. The project report should be hard bound; should consist of a **Contents** page; all pages of report should be numbered; content should be well organized in a meaningful manner; printouts of text & screen layouts should be original and should not be xeroxed.

"**Design is not** just what it **looks like and feels like**. **Design** is how it **works**." - **Steve**   
**Jobs**

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