Database Foundations – Course Description

Overview

This course of introduces students to basic relational database concepts. The course teaches students relational database terminology, as well as data modeling concepts, building Entity Relationship Diagrams (ERDs), and mapping ERDs. Oracle SQL Developer Data Modeler is utilized to build ERDs and The Structured Query Language (SQL) is used to interact with a relational database and manipulate date within the database. Oracle Application Express is utilized to provide practical, hands-on, engaging activities. Leveraging project-based learning techniques, students will create and work with projects which challenge them to design, implement, and demonstrate a database solution for a business or organization.

Available Curriculum Languages:

- Arabic, Simplified Chinese, English, French, Indonesian, Japanese, Brazilian Portuguese, Russian, Spanish

Duration

- Recommended total course time: 90 hours*
- Professional education credit hours for educators who complete Oracle Academy training: 30

  * Course time includes instruction, self-study/homework, practices, projects and assessment

Target Audiences

Educators
- Technical, vocational and 2- and 4- year college and university faculty members who teach computer science, information communications technology (ICT), data science, business or a related subject
- Secondary and vocational school teachers who teach computer science, ICT, or a related subject

Students
- Students who wish to learn to learn the techniques and tools to design, build and extract information from a database
- Students who possess basic mathematical, logical, and analytical problem-solving skills
- Novice programmers, as well as those at advanced levels, who prefer to start learning the basis for the SQL programming language at an introductory level
- This foundational course is suitable for computer science majors and non-majors alike

Prerequisites

Required
- General knowledge of the purpose of a database

Suggested
- Previous experience with a database application

Suggested Next Courses
- Database Design and Programming with SQL

Lesson-by-Lesson Topics

Introduction
- Introduction to the Course
- Introduction to Databases
- Types of Database Models
- Business Requirements

Databases and Data Modeling
- Relational Databases
- Conceptual and Physical Data Models
- Entities and Attributes
- Unique Identifiers
- Relationships
- Entity Relationship Modeling (ERDs)

Refining the Data Model
- More with Relationships
- Tracking Data Changes
- Normalization and Business Rules
- Data Modeling Terminology and Mapping

Oracle SQL Developer Data Modeler
- Oracle SQL Developer Data Modeler
- Convert a Logical Model to a Relational Model

Mapping to the Physical Model
- Mapping Entities and Attributes
- Mapping Primary and Foreign Keys

Introduction to SQL
- Introduction to Oracle Application Express
- Structured Query Language (SQL)
- Data Definition Language (DDL)
- Data Manipulation Language (DML)
- Transaction Control Language (TCL)
- Retrieving Data Using SELECT
- Restricting Data Using WHERE
- Sorting Data Using ORDER BY
- Joining Tables Using JOIN

Dayananda Sagar Institutions   **Prof. Hemanth Uppala <hod-bca@dayanandasagar.edu>**

Welcome to Oracle Academy
1 message

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Hemanth Uppala,

Welcome to Oracle Academy!

- Dayananda Sagar College of Arts, Science and Commerce is now a member of Oracle Academy.
- Sign In to the Academy website to access your membership benefits today.

Now that your institution is a member, invite other faculty at your institution to join. Direct them to the Add Faculty Registration process.

If you have any other questions, contact us.

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Dayananda Sagar Institutions   **Prof. Hemanth Uppala <hod-bca@dayanandasagar.edu>**

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ORACLE Academy

Dear Hemanth Uppala,

Your Oracle Academy Institution membership order has been processed.

Order Details

- **Order Number:** 38113331
- **Customer Support Identifier:** 21855284
- **Order Date:** 27-JUL-18
- **Institution Name:** Dayananda Sagar College of Arts, Science and Commerce
- **Faculty Contact:** Hemanth Uppala

Description

- Oracle Academy Software Bundle
- Oracle Premier Support

CSI Information You will receive an alert when your CSI is active for My Oracle Support access. For more information regarding support, visit Oracle Support Resources.

If you have any other questions, contact us.

Kind Regards,
Oracle Academy

Java Foundations – Course Description

Overview

This course of study engages students with little programming experience. Students are introduced to object-oriented concepts, terminology, and syntax, and the steps required to create basic Java programs using hands-on, engaging activities. Students will learn the concepts of Java programming, design object-oriented applications with Java and create Java programs using hands-on, engaging activities.

Available Curriculum Languages:

- Arabic, Simplified Chinese, English, French, Indonesian, Japanese, Brazilian Portuguese, Russian, Spanish

Duration

- Recommended total course time: 90 hours*
- Professional education credit hours for educators who complete Oracle Academy training: 30

  * Course time includes instruction, self-study/homework, practices, projects and assessment

Target Audiences

Educators
- Technical, vocational, and 2- and 4-year college and university faculty members who teach computer programming, information communications technology (ICT), or a related subject at a foundational level
- Secondary and vocational school teachers who teach computer programming

Students
- Students who wish learn Java programming and build their Object Oriented Programming experience using Java
- This course is a suitable foundational class for computer science majors, and when taught in sequence with Java Programming may be used to prepare students for the AP Computer Science A exam

Prerequisites

Required
- Oracle Academy Workshop - Getting Started with Java Using Alice
- Oracle Academy Workshop - Creating Java Programs with Greenfoot

Suggested
- Oracle Academy Course - Java Fundamentals

Suggested Next Courses

- Oracle Academy Course - Java Programming

Lesson-by-Lesson Topics

Introduction
- About the Course
- Brief History
- Setting up Java

Java Software Development
- The Software Development Process
- What is my Program Doing?
- Introduction to Object-Oriented Programming Concepts

Java Data Types
- What is a Variable?
- Numeric Data
- Textual Data
- Converting Between Data Types
- Keyboard Input

Java Methods and Library Classes
- What is a Method?
- The import Declaration and Packages
- The String Class
- The Random Class
- The Math Class

Decision Statements
- Boolean Expressions and if/else Constructs
- Understanding Conditional Execution
- switch Statement

Loop Constructs
- for Loops
- while and do-while Loops
- Using break and continue Statements

Creating Classes
- Creating a Class?
- Instantiating Objects
- Constructors
- Overloading Methods
- Object Interaction and Encapsulation
- static Variables and Methods

Arrays and Exceptions
- One-dimensional Arrays
- ArrayLists
- Exception Handling
- Debugging Concepts and Techniques

JavaFX
- Introduction to Java FX
- Colors and Shapes
- Graphics, Audio and MouseEvents

DAYANANDA SAGAR COLLEGE OF ARTS, SCIENCE AND COMMERCE
Shavige Malleswara Hills, Kumaraswamy Layout, Bengaluru – 560078
Internal Quality Assurance Cell (IQAC)
Department of Computer Applications
Add-on Course - Online Mode
Oracle Academy - Java Foundations - June- Dec 2021

Total Hours: 90 Hrs

Course: BCA

SL.NO	REGNO	NAME	USERID	Semester
1	19CQSB7001	AAYUSH SHRESTHA	OA328932897	V
2	19CQSB7002	ABHINAV SINGH	OA328932898	V
3	19CQSB7003	ABHISHEK M P	OA328932899	V
4	19CQSB7004	ABINAV KRISHNAN	OA328932900	V
5	19CQSB7005	ADARSH UNNI	OA328932902	V
6	19CQSB7006	AKILA S	OA328932903	V
7	19CQSB7007	ALIYA HASSAN	OA328932904	V
8	19CQSB7008	ANIKA SHREYA SHETTIGAR	OA328932905	V
9	19CQSB7009	ANIMESH KUMAR	OA328932906	V
10	19CQSB7010	AQUIB KHAN	OA328932907	V
11	19CQSB7011	ARUN KUMAR REDDY A	OA328932908	V
12	19CQSB7012	ASHISH V	OA328932909	V
13	19CQSB7013	B N CHAITANYA	OA328932910	V
14	19CQSB7014	BADAGIRE RAMA KRISHNA	OA328932911	V
15	19CQSB7015	BALAJI B V	OA328932912	V
16	19CQSB7016	BASAVARAJ M	OA328932913	V
17	19CQSB7017	BHOOMIKA G L	OA328932914	V
18	19CQSB7018	BHUMIKA J PATEL	OA328932915	V
19	19CQSB7019	BHUVANA SOMASHEKAR	OA328932937	V
20	19CQSB7020	BIKRANT BORA	OA328932938	V
21	19CQSB7021	CHETHAN M S	OA328932939	V
22	19CQSB7022	DEEPAK R	OA328932940	V
23	19CQSB7023	DEV KANT RAI	OA328932941	V
24	19CQSB7024	DHANUSH S	OA328932942	V
25	19CQSB7025	DINESH B PATEL	OA328932943	V
26	19CQSB7026	DIVAKAR G	OA328932944	V
27	19CQSB7027	DIVYUSH POONIA	OA328932945	V
28	19CQSB7028	DRUVANTH A R	OA328932946	V
29	19CQSB7029	EBENEZER	OA328932947	V
30	19CQSB7030	GAURAV S P	OA328932948	V
31	19CQSB7031	GOKUL B	OA328932949	V
32	19CQSB7032	GOKUL J N	OA328932950	V
33	19CQSB7033	HAMMAD SHAHID	OA328932982	V
34	19CQSB7034	HARI SHANKAR S E	OA328932983	V
35	19CQSB7035	HARSHITHA S T	OA328932984	V

36	19CQSB7036	IPSITA DAS	OA328933012	V
37	19CQSB7037	JANANI B P PATEL	OA328933104	V
38	19CQSB7038	JINTO JOHN	OA328933236	V
39	19CQSB7039	K H DIPAYAN SINGHA	OA328933237	V
40	19CQSB7040	KARTHIK KIRAN S	OA328933238	V
41	19CQSB7041	KARTHIKEYAN S	OA328933239	V
42	19CQSB7042	KEERTHI N	OA328933240	V
43	19CQSB7043	KIRTI	OA328933241	V
44	19CQSB7044	KSHITIJ KUMAR	OA328933242	V
45	19CQSB7045	KUSHAN S	OA328933243	V
46	19CQSB7046	MAHAK MRIDULA MAHTO	OA328933244	V
47	19CQSB7047	MOHAMMED ZUBAIR	OA328933245	V
48	19CQSB7048	MALI REDDY PAVANI	OA328933246	V
49	19CQSB7049	MANESH BAHADUR POOJARA	OA328933247	V
50	19CQSB7050	MANISH M	OA328933249	V
51	19CQSB7051	MANISH S	OA328933250	V
52	19CQSB7052	MANMOHAN A	OA328933251	V
53	19CQSB7053	MANOJ T	OA328933252	V
54	19CQSB7054	MD ASRAF ALI	OA328933253	V
55	19CQSB7055	MOHAMED ATHAR	OA328933254	V
56	19CQSB7056	MOHAMED MAZHAR	OA328933255	V
57	19CQSB7057	MOHAMMED FAHAD AHMED	OA328933256	V
58	19CQSB7058	MOHAMMED MUSSAVIR ELAHI	OA328933257	V
59	19CQSB7059	MOHAMMED RAHID KHAN	OA328933258	V
60	19CQSB7060	N S SUDARSHAN BHAT	OA328933259	V
61	19CQSB7061	NAMRATHA S	OA328933295	V
62	19CQSB7062	NANDINI B R	OA328933296	V
63	19CQSB7063	NEHA B GANGULI	OA328933297	V
64	19CQSB7064	NITHIN V	OA328933298	V
65	19CQSB7066	P JUNITH KANNA	OA328933299	V
66	19CQSB7067	P SANTHOSH	OA328933300	V
67	19CQSB7068	PAVAN KUMAR S	OA328933301	V
68	19CQSB7069	PIYUSH KUMAR SINGH	OA328933302	V
69	19CQSB7070	POKALA THARUNYA	OA328933303	V
70	19CQSB7071	PRADEEP KUMAR	OA328933304	V
71	19CQSB7072	PRASHANTH A	OA328933305	V
72	19CQSB7073	PRAVESH BASNET	OA328933306	V
73	19CQSB7074	PRITHVIRAJ MODAK	OA328933307	V
74	19CQSB7075	PRIYANKA	OA328933308	V
75	19CQSB7076	R ARJUN	OA328933309	V
76	19CQSB7077	R DRUVA KUMAR JOGI	OA328933339	V
77	19CQSB7078	R RANJITH	OA328933340	V
78	19CQSB7079	R.SAHAS	OA328933341	V
79	19CQSB7081	RAHUL S PREETHAM	OA328933342	V
80	19CQSB7082	RAHUL SALARIA	OA328933464	V
81	19CQSB7083	RAKSHAT J	OA328933465	V
82	19CQSB7084	RAVI B R	OA328933466	V

			OA328933493	V
83	19CQSB7085	RAVI SONI	OA328933494	V
84	19CQSB7086	REDDY DEEKSHA A	OA328933495	V
85	19CQSB7087	RINI NASKAR	OA328933496	V
86	19CQSB7089	S V ANIRUDH YADAV	OA328933497	V
87	19CQSB7090	SATISH KUMAR P	OA328933498	V
88	19CQSB7091	SHASHI KIRAN M	OA328933499	V
89	19CQSB7092	SHUSHMA N	OA328933500	V
90	19CQSB7093	SIDDARTH K	OA328933501	V
91	19CQSB7094	SIDDHARTH PUHAN	OA328933502	V
92	19CQSB7095	SOJITRA JEET NITINBHAI	OA328933503	V
93	19CQSB7096	SUHAS GOWDA S	OA328933504	V
94	19CQSB7097	SUMANTA DEBNATH	OA328933505	V
95	19CQSB7098	SUNANDA SADHUKHAN	OA328933534	V
96	19CQSB7099	SUPRITH A	OA328933535	V
97	19CQSB7100	TANAMI D	OA328933536	V
98	19CQSB7101	TANUJA M	OA328933537	V
99	19CQSB7102	TARUN RAJ N	OA284774077	V
100	19CQSB7103	TEJAS NOPANY	OA284774304	V
101	19CQSB7104	UROOJ AHMAD	OA284774305	V
102	19CQSB7106	VARSHINI R	OA284774808	V
103	19CQSB7107	VENU S	OA284774870	V
104	19CQSB7108	VIGNESH R	OA284775179	V
105	19CQSB7109	VIJAY N	OA284775180	V
106	19CQSB7110	VINAY KUMAR K	OA284775181	V
107	19CQSB7111	VINITH R	OA284775182	V
108	19CQSB7112	VINOD B	OA284775183	V
109	19CQSB7113	VISHAL D TADASAD	OA284775255	V
110	19CQSB7114	VISHNU G YADAV	OA284775256	V
111	19CQSB7115	YESHAS N	OA284775325	V
112	19CQSB7116	YESHWANTH C	OA284775353	V
113	19CQSB7117	YOUSUF KHAN	OA284775354	V
114	19CQSB7118	MOHAMMED AHMAD HASSAN HAMMED	OA284775355	V
115	19CQSB7119	SWAPNINL DEKA	OA284775424	V
116	196MSB7016	ARUN KUMAR S	OA284775425	V
117	196MSB7117	SINCHANA V		

V. Srivatsale
Oracle Academy Coordinator

Course Coordinator

Mr. Hemanth Uppala, M.Sc.
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Bengaluru -560 111

DAYANANDA SAGAR COLLEGE OF ARTS, SCIENCE AND COMMERCE

Shavige Malleswara Hills, Kumaraswamy Layout, Bengaluru – 560078

Internal Quality Assurance Cell (IQAC)

Department of Computer Applications

Add-on Course - Online Mode

Oracle Academy - Java Foundations MCA - June- Dec 2021

Course: MCA

Total Hours: 90 Hrs

SL.NO	REGNO	NAME	USER ID	Semester
1	19CQSAC001	AJAY A	OA269788228	V
2	19CQSAC002	AMAN LAKRA	OA269788229	V
3	19CQSAC003	ARUN KUMAR S A	OA269788255	V
4	19CQSAC004	BALAJI REDDY P N	OA269788283	V
5	19CQSAC005	BINDU SHREE R	OA269788284	V
6	19CQSAC006	BRUNDA R	OA269788285	V
7	19CQSAC007	DEEPIKA D PUJARI	OA269788286	V
8	19CQSAC008	DILEEPA N V	OA269788287	V
9	19CQSAC009	G RAJSHEKAR	OA269788288	V
10	19CQSAC011	LAVITA	OA269788289	V
11	19CQSAC012	M. DILEEP	OA269788290	V
12	19CQSAC013	MEETA M BARAD	OA269788291	V
13	19CQSAC014	MURGESH	OA269788292	V
14	19CQSAC015	NAGARJUNA V	OA269788390	V
15	19CQSAC016	NAGMA P	OA269788391	V
16	19CQSAC017	NANDITHA B N	OA269788393	V
17	19CQSAC018	POOJA	OA269788396	V
18	19CQSAC020	REVANASIDDAYYA D	OA269788397	V
19	19CQSAC021	SABYASACHI PRUSTY	OA269788398	V
20	19CQSAC022	SANJAY K	OA269788399	V
21	19CQSAC023	SATYAPRIYA A	OA269788426	V
22	19CQSAC024	SAURAV BHARTIA	OA269788427	V
23	19CQSAC025	SHEELA K.S	OA269788428	V
24	19CQSAC026	SHRIPRADA S A	OA269788429	V
25	19CQSAC027	SHUBHAM JADHAV	OA269788430	V
26	19CQSAC028	SHWETA BIRADAR	OA269788431	V
27	19CQSAC029	SHWETHA	OA269788432	V
28	19CQSAC030	SHWETHA B K	OA269788433	V
29	19CQSAC031	SRIRANGA H A	OA269788435	V
30	19CQSAC032	SUNEEL RAO V	OA269788436	V
31	19CQSAC033	SWETA.A	OA269788437	V
32	19CQSAC034	SYED JAMAL JAN	OA269788438	V
33	19CQSAC035	T G HARSHITA	OA269788439	V
34	19CQSAC036	UZMA NOUSHEER	OA269788440	V

35	19CQSAC037	VIJAY V G	OA269788441	V
36	20CQSAC001	AAKASH KUMAR	OA269788541	III
37	20CQSAC002	AJAY KUMAR SHARMA	OA269788542	III
38	20CQSAC003	AKSHAY B HADAPAD	OA269788543	III
39	20CQSAC004	AMOGH PATIL	OA269788544	III
40	20CQSAC005	ANKITA HEGDE	OA269788545	III
41	20CQSAC006	ANUP KUMAR GUPTA	OA269788546	III
42	20CQSAC007	ARUN KUMAR SINGH	OA269788547	III
43	20CQSAC008	BHARATH KUMAR H D	OA269788549	III
44	20CQSAC009	BHAVANA R	OA269788550	III
45	20CQSAC010	BINDU H M	OA269788551	III
46	20CQSAC011	DARSHAN K	OA284772914	III
47	20CQSAC012	DEEPIKA G	OA269788552	III
48	20CQSAC013	DESMOND DEV CHAANDER	OA269788553	III
49	20CQSAC014	DEVARAJ	OA269788554	III
50	20CQSAC015	DIVYA DARSHINI S	OA269788555	III
51	20CQSAC016	DVS BHARATH NIKHIL	OA269788558	III
52	20CQSAC017	GAUTAMA N	OA269788875	III
53	20CQSAC018	HARSHA B V	OA269788903	III
54	20CQSAC019	HARSHA NAIK	OA269788904	III
55	20CQSAC020	HARSHITHAA G	OA269788931	III
56	20CQSAC021	JAYASWAMY N	OA269788932	III
57	20CQSAC022	KISHAN KUMAR THAKUR	OA269788933	III
58	20CQSAC023	KRISHNA SWAROOP N J	OA269788934	III
59	20CQSAC024	KRUTHIKA V	OA269788935	III
60	20CQSAC025	MAHIMA JAVALEKAR B	OA269788936	III
61	20CQSAC027	MD.RIZWAN ALAM	OA269788938	III
62	20CQSAC028	MITHUN M GOWDA	OA269788939	III
63	20CQSAC029	MOHAMMED JUNAID A P	OA269788979	III
64	20CQSAC030	MUJEEB AHMED	OA269788980	III
65	20CQSAC031	MUSKAAN S K	OA269788981	III
66	20CQSAC032	NAGAVENI B	OA269788982	III
67	20CQSAC033	NITHIN R	OA284772760	III
68	20CQSAC034	PAVAN K P	OA269788983	III
69	20CQSAC035	PRADHAN S	OA269788984	III
70	20CQSAC036	PRAGATHI R A	OA269788985	III
71	20CQSAC037	PRASANNAKUMAR K C	OA284772355	III
72	20CQSAC038	PRASURJYA BURAGOHAIN	OA284772356	III
73	20CQSAC039	PREETHY R	OA284772385	III
74	20CQSAC040	RAHUL B	OA269788548	III
75	20CQSAC041	RAKSHITH M	OA284772841	III
76	20CQSAC042	RAKSHITH.S	OA284772843	III
77	20CQSAC043	S P POOJA	OA284772942	III
78	20CQSAC044	S YATHESH	OA284773081	III

			OA284773142	III
79	20CQSAC045	SANJANA G	OA284773276	III
80	20CQSAC046	SHAMANTHA SADANANDA HEGDE	OA284773625	III
81	20CQSAC047	SHASHIDHAR P B	OA284773626	III
82	20CQSAC048	SHIVALEELA T	OA284773628	III
83	20CQSAC049	SHREESHA K V	OA284773629	III
84	20CQSAC050	SINCHANA N L	OA284773631	III
85	20CQSAC051	SRINIVAS KEERTHI P S	OA284773675	III
86	20CQSAC052	SUCHITHRA T N	OA284773702	III
87	20CQSAC053	SUJAY KUMAR V	OA284773730	III
88	20CQSAC054	SUPRIYA K L	OA284773059	III
89	20CQSAC055	THUSHITHA S R	OA284773915	III
90	20CQSAC056	UDAYAGIRI VENKATA KRISHNA	OA284773976	III
91	20CQSAC057	VANDHANA M	OA284773979	III
92	20CQSAC058	VIJAY KUMAR A K	OA284774076	III
93	20CQSAC059	VINAY M N		

Oracle Academy Coordinator

Course Coordinator

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AWARD of COURSE COMPLETION

Java Foundations

PRESENTED TO

KUSHAL BALAJI V

FOR SATISFACTORY COMPLETION OF ALL COURSEWORK

27th December 2022

William McCabe
Vice President, Oracle Academy