# ACS recognition of prior learning (RPL) FORM - 2019

**IMPORTANT NOTICE:**

**This document is required to be completed for all Recognition of Prior Learning (RPL) applications and uploaded as a PDF document (*converted from word*) to the application form. Please note scanned versions will not be accepted.**

**Please refer to the ACS Recognition of Prior Learning (RPL) Instruction document which provides detailed information in order to complete this form.**

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| --- | --- |
| Applicant Name | Sai krishna velpula |
| **Applicant Email Address** | [**velpula.saikrishna1@gmail.com**](mailto:velpula.saikrishna1@gmail.com) |
| **Applicant Date of Birth** | 16/06/1984 |

**Please complete the following 2 sections:**

1. **Section 1 - The Key Areas of Knowledge**
2. **Section 2 - RPL Project Reports**

# SECTION 1 – Key Areas of Knowledge

In the following expandable typing areas, explain **how you have acquired your in-depth knowledge** in these topic areas through your professional experience.

*Please refer to the ACS Recognition of Prior Learning (RPL) Instruction document for more detail*

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| **Essential Core ICT Area of Knowledge:** [Enter topic and 2 subtopic names relating to the chosen area] |
| How have you acquired this knowledge in your working environment? Illustrate your depth of knowledge.  [EXPANDABLE TYPING AREA] |
| **General ICT Area of Knowledge:** [Enter topic and 2 subtopic names relating to the chosen area] |
| How have you acquired this knowledge in your working environment? Illustrate your depth of knowledge.  [EXPANDABLE TYPING AREA] |

# SECTION 2 - RPL PROJECT REPORTS

The purpose of these reports is to enable you to demonstrate your command and implementation of the Areas of Knowledge described in Section 1 of this application.

*Please refer to the ACS Recognition of Prior Learning (RPL) Instruction document for more detail*

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| --- | --- | --- | --- |
| **Project Summary:** | | | |
|  | **Project Name** | **Start Date** | **End Date** |
| **Project 1** | **ANZ - ORC(Operational Risk & Compliance Application)** | **10/20** | **Ongoing** |
| **Project 2** |  | **mm/yy** | **Mm/yy** |

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| Project 1: <project name> |

1. **Project Summary**
   1. **Identification**

|  |  |  |
| --- | --- | --- |
| Client’s Company Name | Legal Name of Entity | |
| Business Address | Street Address  Suburb State Postcode Country | |
| Contact Numbers | Tel: Telephone (include country and area code) |  |
| Web Address | Web address | |
| Email Address | General email address | |
| Nature of project |  | |
| Location of project |  | |
| Name of your employer |  | |

* 1. **Duration**

|  |  |  |
| --- | --- | --- |
|  | From | To |
| Total project duration | mm/yy | mm/yy |
| Your involvement | mm/yy | mm/yy |

* 1. **Resources**

|  |  |
| --- | --- |
|  | Number |
| Your team size |  |
| Total project team size |  |

* 1. **Personal Involvement**

***Please list the phases of the project in which you were personally involved***

| Start | Completion | Phase Description |
| --- | --- | --- |
| mm/yy | mm/yy |  |
| mm/yy | mm/yy |  |
| mm/yy | mm/yy |  |
| mm/yy | mm/yy |  |

* 1. **Describe your role(s) and responsibilities in the project.**

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| [EXPANDABLE TYPING AREA]  I am currently working as an architect (Front End/Backend/Cloud Systems) for both MERN (Mongo Db, Express JS, React and Node) and Cloud systems.  I Involve in the requirement gathering, analysis, POC (Proof of Concept)  Requirements gathering and Analysis, POC preparations, Architecture designing, Data structure Designing, Component Development  Capacity Planning.  Delivery Schedule Preperation  Interviewing the right candiates  Training of the team  Code review, resolving merge conflicts, Desiging of the Git branching strategy for develop, Production, Support branches.  Involving in the sprint planning.  Bug fixes for any issues raised  Pre and Post Production support  Deployment of the application  Interacting with stake holders on the critical functionalities. |

1. **Business Opportunity or Problem**
   1. ***Describe the business opportunity or problem(s) this project addressed.***

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| ORC (Operational Risk and Compliance Applications portal) aims to simplify and standardise Group Compliance processes and tools in an intuitive, innovative application.  Providing a simpler, streamlined user experience to ensure our staff spend more time on adding value to our customers leveraging trusted, risk information.  By taking a customer-led design strategy, ORC will build an ANZ supported platform that is fit for purpose and that is scalable for the entire organization.  This application is being accessed by all the ANZ across 3 countries in the where ANZ bank is located. The application has modules like SEDD (Sanctions Enhanced due diligence), Third Party Due Diligence (TPDD), AML (Anti Money Laundering) and Anti-Bribery and Anti-Corruption (ABAC).  ORC's purpose is to solve for the inherent risks that our current unsupported applications and processes have, commonly built upon spreadsheets and SharePoint sites, that reside within Group Compliance.  These applications are highly susceptible to:  Information Security risk  Business Disruption risk  Software & Hardware failures risk  Payments risks  Operational Risk overheads to manage these risks  Often these applications and data capturing tools are not big enough to warrant large investments into new platforms or uplift with existing capabilities within broader platforms.  ORC seeks to bring together these applications into one supported application where we can manage the risk of these applications and processes more effectively and efficiently ultimately reducing the overall level of risk across the business.  Data Storage •Hosted on a restricted Mongo DB server, Cloud ready •Approved for Restricted and Trusted data storage and usage •Ability to segregate country access (in -country compliance) •ADF and iProtect approved Functionality •CustomisableUAMwith the ability to implement multi-layer approvals • Ability to import and export forms as PDF and excel and store attachments, customise mandatory input fields•Enable specific email notifications for workflow management •Able to track workflow events for version control for purposes •Automated data migration capability •Dynamic smart form capability (i.e.: form responds based on user input) |

1. **Solution**
   1. ***Discuss your contribution to the solution, project or engagement.***

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| I involved in the project right from the day one of the poject.  I involved in the project architecture, schema designs, components development based on the requirements, user actions and features. Base on the requirements I proposed the technology stack as MERN(Mongo, Express, React, Node). The API Layer is purely built on Node, Express, GraphQL, Multer, nodemailer, JWT and UI Layer is purely built React, Javascript, HTML5, Reactstrap, CSS3, typescript and Mongo DB is used for Databases. The application has modules like login Profile with 2 layer authentication mechanisms one being the Active directory Authentication and other one is approval from line managers and Account managers. In application will be based on the roles they access the application and create the assessment. This purely Kanban based style of application where the relationship manger submits the application for his country and it will be reviewed and approved, Approved with conditions, rejected, declined, closed based on the assessment by the divisional manager. Divisional Manger has the final decision to review and take the decision.  SEDD, Module has high level features Dashboards based on the user roles, importing of legacy data using excel, export to PDF, Excel, Mails, SMS features, Workflows based on the assessment outcomes, forms with more than 250 dynamic fields and based on the Division, Country, business unit the form will be dynamically changed.  TPDD (Third Party Due diligence) is almost similar to the SEDD with more than 3 types of assessment and Risk calculations will be based on the selection of countries and some other questions answered by Relationship managers of the respective country. TPDD will have assessments will undergo into phases like third Initial assessment, Periodic assessment, Variation Assessment.  The application has lot features, sensitive information of the bank, business, Countries. Hence the data to this kind application will be securely handled.  [EXPANDABLE TYPING AREA] |

* 1. ***Describe any design or problem solving methods you used on this project.***

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| As the application will have huge data and sensitive information, All the data user will be submitted will being the form encrypted data and will be decrypted both in the UI and API layer. The application is being implemented with encryptions of Mongo DB. The application has the facility to upload the file business related file format like  Sample workflow which has been implemented is attached below for reference.    [EXPANDABLE TYPING AREA] |

* 1. ***List the major deliverables of the project that you were responsible for or contributed to.***

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| 1.As of now, I have delivered and the application is in live for all the SEDD Parts, Works flows (Assessment, Annual reviews, Periodic Reviews, Approved with Conditions, Declined Work Flows)  2. The application has been enabled for the Australia, Newzealnd, Institutional, Pacific divisions relations Manegers, Divsional Mangers, Customer Reltion ship managers.  3. Implemented new role called Procurement, Submitter.  4. TPDD is under Development phase will go live by this December 2021.  5. Delivered in-country compliance for Singapore, Indonesia, ectc.. countries.  6. Delivered Risk Calculation Matrix based on the form field selection, Country selection  7. updates to Belarus to align with the Sanctions Policy.  [EXPANDABLE TYPING AREA] |

1. **Results**
   1. ***Was your solution implemented? If so, describe the role, if any, you had in the implementation.***

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| I was involved in the complete architecture, Schema Design, Micro services, React Components development.  Considering the application has lot sensitive, confidential information, the attachments uploaded has to be secured safely. For this one I have implemented the concept of Mongo Db GridFS concept.  This has a number of advantages over files stored in a file system. Unlike a file system, the database will have no problem dealing with millions of objects. Additionally, we get the power of the database when dealing with this data. we can do advanced queries to find a file, using indexes; we can also do neat things like replication of the entire file set.  MongoDB stores objects in a binary format called BSON. BinData is a BSON data type for a binary byte array. However, MongoDB objects are typically limited to 4MB in size. To deal with this, files are "chunked" into multiple objects that are less than 4MB each. This has the added advantage of letting us efficiently retrieve a specific range of the given file.  While we could write our own chunking code, a standard format for this chunking is predefined, call GridFS. GridFS support is included in many MongoDB drivers and also in the mongofiles command line utility.  Storing user-generated file content  A large number of web applications allow users to upload files. Historically, when working with relational databases, these user-generated files get stored on the file system separate from the database. This creates a number of problems. How to replicate the files to all of the needed servers? How to delete all the copies when the file is deleted? How to backup the files for safety and disaster recovery? GridFS solves these problems for the user by storing the files along with the database, and you can leverage your database backup to backup your files. Also, due to MongoDB replication, a copy of your files is stored in each replica. Deleting the file is as easy as deleting an object in the database.  Accessing portions of file content  When a file is uploaded to GridFS, the file is split into chunks of 256k and stored separately. So, when you need to read only a certain range of bytes of the file, only those chunks are brought into memory and not the whole file. This is extremely useful when dealing with large media content that needs to be selectively read or edited.  const storage = new GridFsStorage({      url: mongoURI,      file: (req, file) => {          return new Promise((resolve, reject) => {              crypto.randomBytes(16, (err, buf) => {                  if (err) {                      return reject(err);                  }                  const filename = buf.toString("hex") + path.extname(file.originalname);                  const fileInfo = {                      filename: filename,                      bucketName: "sedd\_uploads"                  };                  resolve(fileInfo);              });          });      }  });  const upload = multer({      storage,      limits: {          fileSize: 26214401,      },      fileFilter: (req, file, cb) => {          const allowedFileExtensions = [".doc", ".docx", ".txt", ".xls", ".xlsx", ".pdf", ".ppt", ".pptx", ".jpg", ".jpeg", ".png", ".tiff", ".gif", ".msg", ".csv"];          const fileExtension = file.originalname.substring(file.originalname.lastIndexOf("."));          if (allowedFileExtensions.indexOf(fileExtension.toLowerCase()) >= 0) {              cb(null, true);          }          else {              cb(null, false);              return cb(new Error('System support the attachments of the types ".doc, .docx, .txt, .xls, .xlsx, .pdf, .ppt, .pptx, .jpg, .jpeg, .png, .tiff, .gif, .msg, .csv". Please upload only the supported file types.'));          }      }  }).array("uploadAttachments", 20);  The application has the facility to upload files of limit 20. Once the file has been stored in the mongo DB, the references will be stored the the original data collection.  GridFS uses two collections to store the data:  fs.chunks  {"\_id":"60a1de4a7bc83b3a98e91262","files\_id":"60a1de4a7bc83b3a98e9125f","n":0,"data":""}  fs.files  {"\_id":"60a1de4a7bc83b3a98e9125f","length":844,"chunkSize":261120,"uploadDate":"2021-05-17T03:08:58.647Z","filename":"21dc0cf09b2a8b802c0e4860cbefe4b2.txt","md5":"672cb4d301aaa51bb0d00da7fc417327","contentType":"text/plain"}  Storing documents greater than 16MB in MongoDB  By default, MongoDB document size is capped at 16MB. So, if you have documents that are greater than 16MB, you can store them using GridFS.  Overcoming file system limitations  If you’re storing a large number of files, you’ll need to consider file system limitations like the maximum number of files/directory, etc. With GridFS, you don’t need to worry about the file system limits. Also, with GridFS and MongoDB sharding, you can distribute your files across different servers without significantly increasing the operational complexity.  I have used Multer and gridfs storage modules in the API layer to achieve this functionality.  [EXPANDABLE TYPING AREA] |

* 1. ***Assess the overall success or failure of the project*.**

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| This project is very big successful and received several Appreciations. |

* 1. **Lessons Learned**

***In retrospect, what you might have done differently on this project?***

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| As part of this project, we handle lot of sensitive information like their empIds, country of employment and roles they perform, business nature, approvals, rejections of the forms across all the branches of ANZ bank. I have learned how securely, I have to handle all this information when working, even while interacting with others and we should not be part of such kind of data breaching activities. |

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| Project 2: <project name> |

1. **Project Summary**
   1. **Identification**

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| --- | --- | --- |
| Client’s Company Name | Legal Name of Entity | |
| Business Address | Street Address  Suburb State Postcode Country | |
| Contact Numbers | Tel: Telephone (include country and area code) |  |
| Web Address | Web address | |
| Email Address | General email address | |
| Nature of project |  | |
| Location of project |  | |
| Name of your employer |  | |

* 1. **Duration**

|  |  |  |
| --- | --- | --- |
|  | From | To |
| Total project duration | mm/yy | mm/yy |
| Your involvement | mm/yy | mm/yy |

* 1. **Resources**

|  |  |
| --- | --- |
|  | Number |
| Your team size |  |
| Total project team size |  |

* 1. **Personal Involvement**

***Please list the phases of the project in which you were personally involved***

| Start | Completion | Phase Description |
| --- | --- | --- |
| mm/yy | mm/yy |  |
| mm/yy | mm/yy |  |
| mm/yy | mm/yy |  |
| mm/yy | mm/yy |  |

* 1. **Describe your role(s) and responsibilities in the project.**

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| --- |
| [EXPANDABLE TYPING AREA] |

1. **Business Opportunity or Problem**
   1. ***Describe the business opportunity or problem(s) this project addressed.***

|  |
| --- |
| [EXPANDABLE TYPING AREA] |

1. **Solution**
   1. ***Discuss your contribution to the solution, project or engagement.***

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| --- |
| [EXPANDABLE TYPING AREA] |

* 1. ***Describe any design or problem solving methods you used on this project.***

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| [EXPANDABLE TYPING AREA] |

* 1. ***List the major deliverables of the project that you were responsible for or contributed to.***

|  |
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| [EXPANDABLE TYPING AREA] |

1. **Results**
   1. ***Was your solution implemented? If so, describe the role, if any, you had in the implementation.***

|  |
| --- |
| [EXPANDABLE TYPING AREA] |

* 1. ***Assess the overall success or failure of the project*.**

|  |
| --- |
| [EXPANDABLE TYPING AREA] |

* 1. **Lessons Learned**

***In retrospect, what you might have done differently on this project?***

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| --- |
| [EXPANDABLE TYPING AREA] |